# *ZX400/ZX410*

## *SECURITY SYSTEM CONTROL*

## *PROGRAMMING GUIDE*

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# 1 *Operating The System*

## 1.1 Introduction

The Moose ZX400/ZX410 Security System incorporates the most desired operational features available today. The ZX400/ZX410 features ease of installation and programming with an easy-to-operate keypad. Features such as cross-zoning, delay before dialing, and an audibles "mute" function on the keypad help reduce false alarms. The ZX400/ZX410 also provides two truly independent partitions which allow the system to be divided into two distinct fully functional areas.

The ZX400/ZX410 is pre-programmed at the factory with one 2-wire smoke detector zone and twelve burglar zones (one delay, two interior, and nine instant) through Moose's unique "2 in 1" Zoning™. A Zone Expander Module (ZXEXP) may be added to provide an additional 2-wire smoke detector zone and up to 16 additional zones.

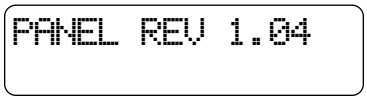
The ZX400/ZX410 Security Control is easily programmed with any one of four ZX400/ZX410 Controls Stations (LCD, LED, SSD, or VFD). The Control's on-board RAM maintains its data even with the power disconnected. The Control may also be programmed remotely with the aid of a personal computer (PC) and a modem using Moose's remote programming software (RPM2PRO) and a panel support module (PRO400).

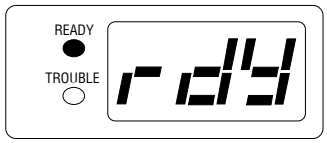
The ZX400/ZX410 Security Control allows the division of a single system into two distinct areas. To the customer, each area appears to be a fully functional system. Each zone and Control Station must be assigned to one of the two areas. The Control Stations may also be extended to operate in the other area as a secondary area. A user passcode may be assigned to access and control one or both of the areas. The Control may have up to 50 user codes programmed with 15 different levels of authority.

## 1.2 Powering Up With The Control Station

The control comes from the manufacturer with a factory set (default) program. The factory default code for user passcode No. 1 is "1234". This passcode is authorized to perform all user level functions. The default setting for the installer passcode is "9632". The installer passcode can perform the installer level functions. (See section 3.2.4 for the listed functions.) All zones and Control Stations are assigned to Area 1 at default. The default setting for user passcode No. 50 is "1245" and it is authorized to perform all user level functions. It is assigned to both Area 1 and 2.

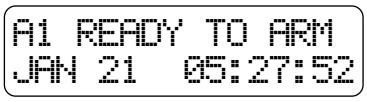
When a Control Station is powered-up, it briefly displays a test pattern followed by its data bus address. The Control Station will then begin displaying information from the control panel. During the first fifteen seconds after power-up, the control panel will instruct the Control Station to display the panel's software revision and flash the AWAY, STAY, NIGHT, READY, and TROUBLE LEDs.




(NOTE: Rev number may change as software is upgraded)

Once the zones are in a secure state, the Control Station displays:



Nearly every option on the control requires the use of a valid user passcode. The user passcode may be used for functions in a specific area or system-wide. Most of the options may be performed at any time, even while the control is fully or partially armed. To perform a function, a user must press the key corresponding to that function and then enter a passcode with the appropriate authority level. For purposes of discussion, the installer and the end user are both considered system users, but have different levels of authorization.

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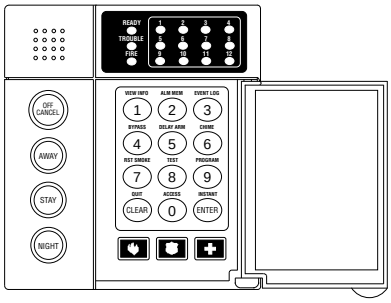
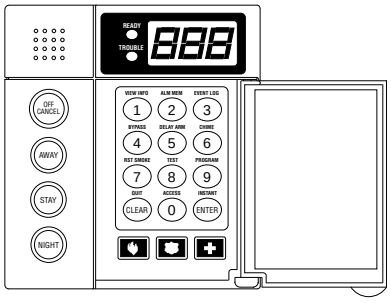
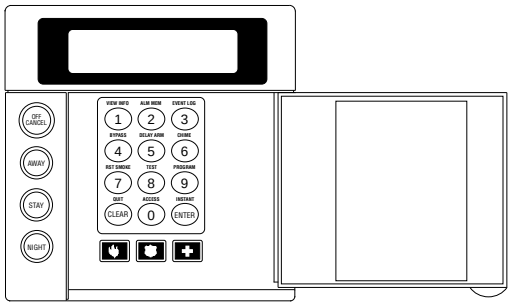


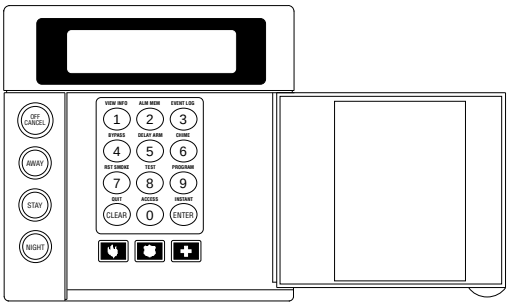
**LED Control Station**
(ZXLED)



**SSD Control Station**
(ZXSSD)



**LCD Control Station**
(ZXLCD)



**VFD Control Station**
(ZXVFD)

**FIGURE 1-1 System Control Stations**

## 1.3 Control Station Overview

For SSD, LED, LCD, and VFD Control Stations:

| | |
|---|---|
| Away, Stay, and Night Keys | These keys, followed by a passcode, arm one or both areas to the AWAY, STAY, or NIGHT level. |
| Away, Stay, and Night LED's | These LEDs backlight the AWAY, STAY, and NIGHT keys to indicate the armed level of the Control Station's primary area. These will flash during Exit Time or during a Burglar Alarm after Dialer Delay has expired. |
| Off / Cancel Key | This key, followed by a valid user code, disarms an area(s), silences and cancels alarms, and silences trouble conditions. |
| Instant/Enter Key | This key is used in programming to store entered data. Also, when pressed during an exit time from a STAY or NIGHT arming, this key disables both the entry and exit times for the primary area of the Control Station. |
| Keypad Audibles | The piezo resonator activates for conditions including entry and exit notification, alarm, trouble, chime, etc. |
| Auxiliary Keys | When enabled, these keys activate the auxiliary alarms (Fire, Police, Medical Emergency). |
| Clear/Quit Key | This key is used to reset any entry error and to allow you to escape out of an operation. To clear a "Missing Keypad", "Memory Error", or "Smoke Trouble" system trouble condition or to turn off the Duress output, press and hold the CLEAR key for three seconds. |
| Keyboard Backlighting | The Control Station contains recessed LEDs to provide a light in dark or dimly lit environments. |

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For SSD and LED Control Stations only:

| | |
|---|---|
| Ready LED | This LED indicates the status of the Burglar zones assigned to the Control Station's primary area. It illuminates when the Burglar zones are all secure. |
| Trouble LED | This LED will illuminate for system troubles (AC failure, low battery, communication failure), zone troubles, and Burglar Tamper conditions. (See Section 3.2.5.2 for a complete list of trouble conditions.) |

For LED Control Stations only:

| | |
|---|---|
| Zone Status LED's | These LEDs generally indicate the condition of zones 1 through 12. See the *ZXLED User Guide* for how the LEDs indicate the Normal, Faulted, Bypassed, Trouble, and Alarm conditions.<br><br>These LEDs may also display system trouble conditions and programming information. |
| Fire Zone LED | This LED indicates the status of the two-wire smoke zone on the main control board (Zone 30). |

For SSD Control Stations only:

| | |
|---|---|
| Seven Segment Display | The three Seven Segment Display (SSD) characters enunciate system status, zone status and user information. See the *ZXSSD User Guide* for details. |

## 1.4 Control Station Function Keys

All Control Station function keys (except the View Info Key) require that the function key be pressed followed by a valid passcode. The passcode's authority level will determine if the selected function can be performed. While entering the passcode, there will be a four second time-out for no activity . After the passcode has been entered, there will be a three minute time-out for no activity. The time-out will return the Control Station to idle. The operator may press the CLEAR key at any time to return the Control Station to idle.

Below are the functions associated with keys 0 - 9 and a brief description of the functions. For details on the operation of these functions, as well as on the three arming keys, see the appropriate User Guide.

KEY #1 VIEW INFO KEY
This key is used to view information and scroll through alarm and trouble conditions. A passcode is not required to perform this function.

KEY #2 ALM MEM KEY
This key allows you to view the most recent alarm event(s) on the Control Station.

KEY #3 EVENT LOG KEY
From an LED or SSD Control Station, this key will initiate printing of the Event Log. From an LCD or VFD Control Station, this key will allow you to view the Event Log on the Control Station or initiate printing the log.

KEY #4 BYPASS KEY
This key allows you to select zones to be bypassed (removed from the system) and unbypassed (restored to the system).

KEY #5 DELAY ARM KEY
This key extends or postpones an automatic arming by one hour.

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KEY #6 CHIME KEY
This key turns the chime function on or off for a particular area.

KEY #7 RST SMOKE KEY
This key resets all latched smoked detectors and clears “Smoke Troubles”.

KEY #8 TEST KEY
This key allows you to perform one of the six following tests: Walk, Battery, Bell, Communications, Keypad, and RF Signal Strength. After a valid passcode is entered, you may select the test to perform.

KEY #9 PROGRAM KEY
This key is used to enter installer or user level programming. User level programming is described in the appropriate User Guide. Installer level programming is described in Chapter 3.

KEY #0 ACCESS KEY
This key is used to activate a door strike or other similar function.

### 1.5 Secondary Function Keys

The Control Station secondary function keys may be activated by pressing the ENTER key followed by Key #1 through Key #6. A passcode is not required to activate these functions. These functions are activated by pressing the following:

| | |
|---|---|
| ENTER + KEY #1 | Turns Lamp Trigger Output ON or OFF |
| ENTER + KEY #2 | Turns Universal Output ON or OFF |
| ENTER + KEY #3 | Quick Access from Keypad |
| ENTER + KEY #4 | Turns Key 4 Output ON or OFF |
| ENTER + KEY #5 | Turns Key 5 Output ON or OFF |
| ENTER + KEY #6 | Turns Key 6 Output ON or OFF |

Please see section 3.2.5 for more details on the operation of these functions. The above outputs are only available to the user if you program them as Programmable Outputs. If any of these features are made available to the user, please instruct the user on their operation as it is not detailed in the appropriate User Guide.

## 1.6 Installer Arming and Disarming

The installer passcode may be used to arm one or both areas. It may be used to disarm one or both areas, but only if the area was armed by the installer passcode. It may be used to silence alarms and to silence trouble conditions. When it is used to silence a Burglar alarm, it will not disarm the area or cancel the alarm unless the area was armed by the installer passcode. For a detailed description of arming and disarming procedures, see the appropriate User Guide.

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# 2 *Programming the Control*

## 2.1 Introduction

The control may be programmed locally from any LED, SSD, LCD, or VFD Control Station. It may also be programmed using the remote programming software, RPM/2 Pro.

## 2.2 Local Programming

There are two levels of Control Station programming : User level and Installer level.

User level programming provides the ability to add, change, or delete user passcodes. It also allows Scheduled Arming and Latchkey operation to be changed. A user passcode with authority level 9, 10, or 15 is required to access the user level programming (see Section 3.2.4). See the appropriate User Guide for more information regarding user level programming.

Installer level programming allows total customization of the control's operating features. Only the installer code may access this level. Anyone attempting installer level programming should be familiar with the contents of this publication prior to programming the control panel.

**NOTE**

**If the installer code is lost or forgotten, it may be impossible to program the control locally.**

If remote programming is used, it is possible to "lockout" or prevent takeover of a control by another installation company by selecting "Lockout Local Prog." This prevents the installer passcode from gaining access through local Control Station programming. The installer passcode may still be used for the non-programming functions described in Section 3.2.4. **,**does not affect remote programming.

## 2.3 Remote Programming (RPM/2 Pro)

The entire control database can be programmed remotely through a computer and modem using a remote program called RPM/2 Pro. To use RPM/2 Pro with the ZX400, you will need RPM2PRO and a panel support module for the ZX400 family (PRO400). Remote programming utilizes extensive error checking and security safeguards, including data encryption, password log-on, panel IDs and agency codes.

Panel IDs are used by RPM/2 Pro to identify a control during a remote programming session. The agency code is used by the control to identify the remote programmer during initialization of a remote programming session. These codes are loaded into the control by RPM/2 Pro during the first RPM/2 Pro session. They cannot be viewed by local programming.

The panel ID and agency code work together to prevent illegal takeover by another computer with RPM/2 Pro. Once the agency code is programmed, the control also prevents local changing of account codes and telephone numbers and disables the RESTORE DEFAULTS function.

## 2.4 Area Partitioning

The control may be divided (partitioned) into two independent areas. To the customer, each area appears to be a full-featured system. This allows one control to be shared by two independent departments within a common structure. **Note that LED Control Stations *cannot* have a Secondary Area.**

When reporting to the Central Station, events such as AC Power Failure, Low Battery, automatic tests, etc., are considered system reports and are transmitted as an Area 1 account although they are displayed on all Control Stations regardless of area. All fire related events (i.e.: fire alarms, troubles, etc.) are also considered system events and are reported using an Area 1 account.

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Each area can be programmed to control separate outputs with a dedicated audible or annunciator. It is also possible to combine the outputs of both areas so that a central siren, bell or audible can be used. The audible should be positioned so that it can be heard by all partitions. When partitioning is not desired, simply designate all zones to a single area (Area 1).

An example of a partitioning application is a business that is divided into two departments with both departments occupied by a different manager. The control communicator would be installed in a secure area (common utility closet) with dedicated and uninterrupted AC power and telephone service. This must be considered when planning the control panel position as the power and phone service to a tenant may be terminated if that tenant leaves.

Each tenant's compartment is assigned an area with a number of zones, codes, and Control Stations. When an area experiences an alarm or other event, the adjacent system area is not alerted to the event since the Control Station would be programmed to respond only to events in the assigned area.

Another programming feature is the ability to allow crossover between areas. This allows the user(s) from one area to operate the other area from a designated Control Station. Programming is discussed in detail later in this manual. By factory default, users are only allowed to see and operate their primary assigned area. Multi-area operation may be useful for applications where the security system is installed in a facility that is divided into departments. Each department has a set of users who are responsible for arming and disarming only the security system to which they are assigned. If desired, the system may be set up to allow one or more users to have control over both areas.

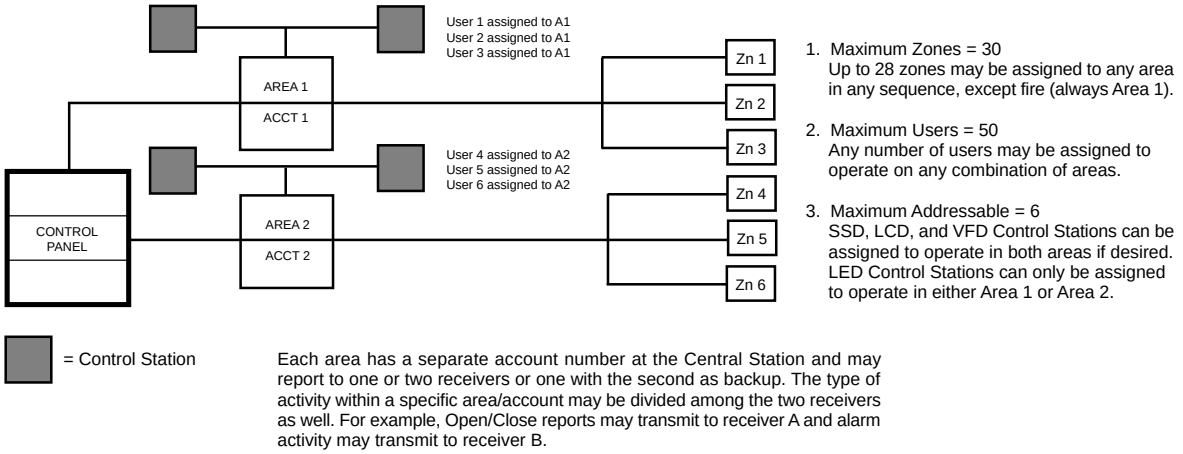
User 1 assigned to A1
User 2 assigned to A1
User 3 assigned to A1
AREA 1
ACCT 1
User 4 assigned to A2
User 5 assigned to A2
User 6 assigned to A2
AREA 2
ACCT 2
CONTROL PANEL
Zn 1
Zn 2
Zn 3
Zn 4
Zn 5
Zn 6
1. Maximum Zones = 30
Up to 28 zones may be assigned to any area in any sequence, except fire (always Area 1).
2. Maximum Users = 50
Any number of users may be assigned to operate on any combination of areas.
3. Maximum Addressable = 6
SSD, LCD, and VFD Control Stations can be assigned to operate in both areas if desired. LED Control Stations can only be assigned to operate in either Area 1 or Area 2.
= Control Station
Each area has a separate account number at the Central Station and may report to one or two receivers or one with the second as backup. The type of activity within a specific area/account may be divided among the two receivers as well. For example, Open/Close reports may transmit to receiver A and alarm activity may transmit to receiver B.

**Figure 2-1** ***Area Partitioning***

## 2.5 LED Control Station Programming

When in programming mode, an LED Control Station will mimic what is displayed on an SSD Control Station. The top row of LEDs will correspond to the first SSD character, the second row to the second SSD character and the third row to the third SSD character. If an SSD character is 1 - 9 or A - F, then that hexadecimal digit will be displayed in binary on the appropriate row of LEDs. See Chapter 3 for programming with the Control Station. Chapter 3 will also show examples of SSD, LCD, or VFD Control Station displays. There are no examples for LED Control Stations (see Figure 2-2).

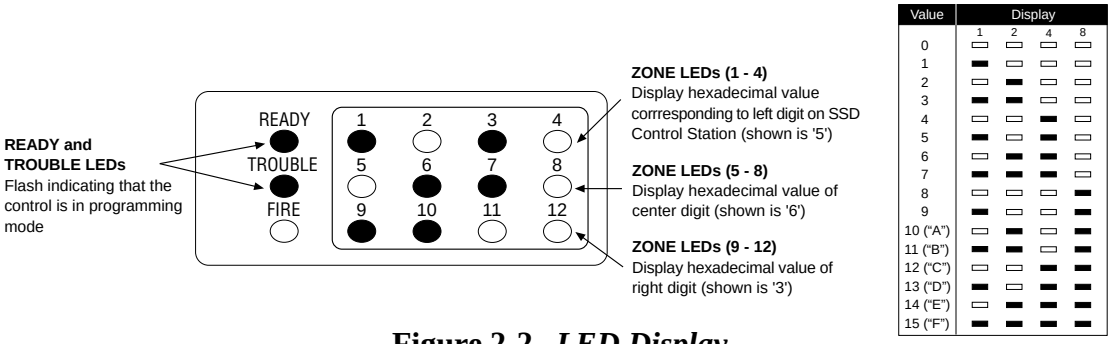


**Figure 2-2** ***LED Display***

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# 3 *Installer Level Programming*

## 3.1 Menu Options

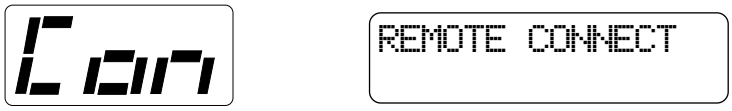
This section will describe Installer Level Programming as performed locally from a Control Station.

To enter Installer Level Programming, press the PROGRAM (9) key and enter the installer passcode (default = 9632). The Control Station will then prompt you to select a programming option from 1 to 9 where:

1 = REMOTE CONNECT
2 = SET CLOCK
3 = EDIT FUNCTION MAP
4 = EDIT ZONE NAMES
5 = DEFAULT USER CODE 1
6 = RESTORE FACTORY DEFAULTS
7 = SET DAYS UNTIL NEXT COMM TEST
8 = CALL RPM
9 = PROGRAM RF DATA

### 3.1.1 Remote Connect

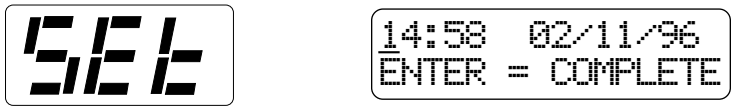
After entering programming mode, press the '1' key to perform a Remote Connect. The control will seize the telephone line and the control station will return to idle. This feature is used to manually connect the control to a remote programming computer.



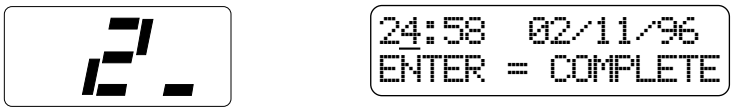

### 3.1.2 Set Clock

After entering programming mode, press the '2' key for Set Clock programming. The Control Station will go into clock set mode.

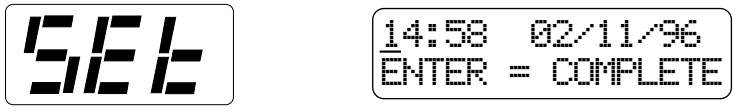
The SSD Control Station will have a Set Clock prompt display. The LCD and VFD Control Station will display the current hour, minute, month, day, and year (HH:MM MM/DD/YY). The zone LEDs on an LED Control Station will remain off. The hour must be entered in 24-hour format.




The operator may start entering numbers from the first hour digit. As a number is entered, it is displayed and the cursor automatically moves to the next position on the LCD and VFD Control Station. When a digit is entered, the Control Station will display:




If the CLEAR key is pressed, the cursor will move back to the first hour digit and any changes that were entered will be erased, i.e.: the current time and date will be re-displayed. If the CLEAR key is pressed and no changes have been entered, the Control Station will return to idle with no changes to the time or date.

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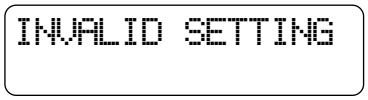
If the ENTER key is pressed, all changes that were entered will be range checked. The entire time and date need not be entered. Any fields that are not entered will remain unchanged. If the data entered is within range parameters, the clock will be updated and the Control Station will return to idle. A "Begin Set Clock" event will indicate the time before the change and an "End Set Clock" event will indicate the time after the change. If the entered data is out of range, the Control Station will indicate an error, erase the previous entries and re-display the current time and date.




### 3.1.3 Edit Function Map

After entering programming mode, press the '3' key to enter Edit Function Map mode. The Control Station will prompt you for a location to be programmed. The location numbers, definitions, and valid entries for the locations are described in Section 3.2. From this mode, you may edit the entire Function Map except for User Codes and Zone Names. Editing Zone Names is described in Section 3.1.4. Editing User Codes is described in the appropriate User Guide, but is not accessible with the installer passcode.

From the LOCATION prompt, enter digits for the desired location number. The digits entered will be displayed. If more than three digits are entered, the first digit entered will be discarded. If you make a mistake, you may press the CLEAR key to clear out the location and start over. When the desired location number is displayed, press the ENTER key. The Control Station will then display the current value programmed at that location.

#### 3.1.3.1 Entering a New Value at a Location

While the Control Station is displaying the value at a location, you can enter digits to change the value at that location. The new value is displayed as you enter the digits. Other keys work as follows:

ENTER - if pressed after new digits are entered, the displayed value is stored at the current location.
- if pressed with no new digits entered, then it will go to the next location.

'C' Key - if pressed, it will go back one location and ignore any digits entered.

CLEAR - if pressed after new digits are entered, erase those digits and re-display the original value at the location.
- if pressed with no new digits entered, then it will return to the LOCATION prompt.

OFF CANCEL - on an LED or SSD Control Station, it will momentarily display the present location number.

**NOTE**

**When you press the ENTER key to store the new value, the system will store the value as entered. It is the responsibility of the programmer to enter a value within the specified range. If the value entered is out of the range, then undesirable operation may occur. In some cases, if the value entered is too large, it will be truncated before it is stored causing a different value to be stored than was entered.**

#### 3.1.3.2 Programming Account Code and Telephone Number Digits

When the location being programmed is an account code or telephone number digit (see Sections 3.2.8 and 3.2.9), the value will be displayed as an "H" followed by a single digit. The "H" indicates that this location is a Hexadecimal field. The valid entries for these locations are "0" through "F", where A - F correspond to 10 - 15 respectively.

To program a digit, enter digits as normal. To enter an A - F, enter a '1' followed by a '0' through '5'.
As in programming normal fields, if too many digits are entered, the first digit entered will be discarded. The ENTER, OFF CANCEL, 'C', and CLEAR keys will work the same as described above.

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### 3.1.3.3 Programming Report Codes and Attribute Fields

When the location being programmed is a report code (see sections 3.2.10 - 3.2.12) or an attribute field (see sections 3.2.1 - 3.2.3 and 3.2.12 - 3.2.13), the value will be displayed as an "H" followed by two digits. The "H" indicates that this location is a Hexadecimal field. The valid entries for these locations are "00" through "FF", where A - F correspond with 10 - 15 respectively. The Control Station display will automatically display the hexadecimal value.

To program one of these locations, enter digits as normal. To display a '1' in the first digit location, you must enter a '0' before the '1', i.e. '01' displays a '1'. To enter an A - F, enter a '1' followed by a '0' through '5'. For example:

| Enter | To Get |
|---|---|
| 1-2-3 | C3 |
| 0-1-2 | 12 |
| 1-8 | 18 |
| 0-1-1-0 | 1A |
| 1-2 | 0C |
| 2-1 | 21 |

As in programming normal fields, if too many digits are entered, the first digit entered will be discarded. The ENTER, OFF CANCEL, 'C', and CLEAR keys will work the same as described above.

### 3.1.3.4 Additional Programming Notes

To exit out of Edit Function Map mode and return the Control Station to the idle state, press the CLEAR key from the LOCATION prompt. (You may need to press the CLEAR key several times to get to the LOCATION prompt.) An "End Local Programming" event will not be logged until 255 seconds after you exit programming mode. This is to allow you to exit and re-enter programming mode repeatedly without logging each one. To force an "End Local Programming" event to be logged, immediately (i.e.: to have it reported to the Central Station), press and hold the CLEAR key for three seconds.

When programming the value at the last programming location, the Control Station will return to the LOCATION prompt if the ENTER key is pressed.

If the panel has been programmed from RPM/2 Pro and the Agency Code has been loaded into the panel, then the locations corresponding to the telephone numbers and account codes will not be editable.

## 3.1.4 Edit Zone Names

Only the LCD and VFD Control Station may be used to edit zone names. From the Installer Programming Menu, press the '4' key to edit the zone names. The Control Station will prompt you for a Zone ID to be programmed. The valid Zone IDs are 1 to 30.

Enter a number corresponding to the Zone ID and press ENTER. Once a valid Zone ID is selected, the control will display the Zone ID and the current Zone Name with the cursor on the first character. Press the key associated with each character. Each keypress will change the display to the next character listed for that key. The characters available for editing the Zone Name are as follows:

| | |
|---|---|
| Key #1 | 0 1 2 3 4 5 6 7 8 9 : ; < = > ? @ |
| Key #2 | A B C |
| Key #3 | D E F |
| Key #4 | G H I |
| Key #5 | J K L |
| Key #6 | M N O |
| Key #7 | P Q R S |
| Key #8 | T U V |
| Key #9 | W X Y Z [ ù ] ^ _ |
| Key #0 | space ! " # $ % & ' * + , - . / |
| 'A' Key | Used to move the cursor back one position |
| 'C' Key | Used to move the cursor forward one position |

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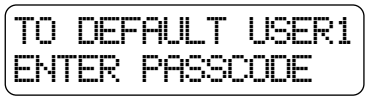
If the ENTER or CLEAR key is pressed and no changes have been made, the Control Station will return to the Zone ID prompt. If the CLEAR key is pressed and changes have been made, all changes will be cleared and the control station will return to displaying the original Zone Name. To save any changes made to the Zone Name, press the ENTER key. The control station will return to the Zone ID prompt. Press the CLEAR key to return to idle.

### 3.1.5 Default User Code 1

The installer passcode does not have the authority to edit user passcodes locally and only high level user passcodes (User Code 1 at default) have the authority to edit user passcodes. If you need to edit user passcodes or if the User Code 1 passcode is forgotten, this function may be used to reset the User Code 1 passcode back to the default value of "1234".

After entering programming mode, press the '5' key to default the User Code 1 passcode. The Control Station will prompt you to re-enter the installer passcode for verification.




If the passcode is entered correctly, the Control Station will display an acknowledgment and return back to the idle mode.

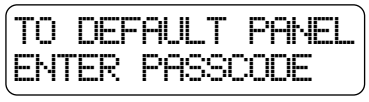
### 3.1.6 Restore Factory Defaults

This function provides a means to completely wipe out the panel's memory and restore it to a factory default state. If successfully completed, the panel will:

- default the entire Function Map (including Zone Names and User Passcodes)
- clear the Event Log and log a "System Startup" event
- clear all alarm, trouble and armed conditions
- not affect the System Clock (time and date).
- not affect data programmed in the RF Gateway(s)

If the panel has been programmed from RPM/2 Pro and the Agency Code has been loaded into the panel, then this function will be disabled.

After entering programming mode, press the '6' key to enter Restore Factory Defaults mode. The Control Station will prompt you to re-enter the installer passcode for verification.




If it is entered correctly, the Control Station will go back to the system powering up display.

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### 3.1.7 Days Until Next Comm Test

The scheduling of Automatic Communications Tests requires programming a “Comm Test Time-of-Day” and the number of “Days Between Comm Tests” as described in Section 3.2.7. If “Days Between Comm Tests” is zero, then no automatic comm tests will occur. Otherwise, a comm test will occur when a *Days Until the Next Comm Test* counter ticks down to zero. This function allows you to view that *Days* counter. If the value displayed is zero or one, then the next comm test will occur at the next “Comm Test Time-of-Day”. This function also allows you to change the number of *Days Until the Next Comm Test*.

After entering programming mode, press the ‘7’ key to enter Days Until Next Comm test programming. The Control Station will display the number of days until the next scheduled comm test.

To change this value, enter a number between 0 and 255. If a mistake is make, press the CLEAR key to start over. If a number greater than 255 is entered, the first digit entered will be discarded. When the desired number of days is displayed, press the ENTER key. The Control Station will return to idle. To exit out of this function without adjusting the number of days, press the CLEAR key.

### 3.1.8 Call RPM

This option is not available at this time.

### 3.1.9 Program RF Data

This option is not available at this time.

## 3.2 Function Map

To edit the Function Map, press the PROGRAM (9) key, enter the installer passcode, and press the ‘3’ key to select the Edit Function Map programming option. The Control Station will prompt for a location to be programmed. All function map locations can be programmed except for user codes and zone names.

**NOTE**

**When entering values into the programming locations, it is possible to enter values which exceed the valid range of the programmed options. It is the responsibility of the installer to ensure the correct value of any entry programmed into the control. The valid entries for each location are detailed in the following sections.**

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### 3.2.1 Area Data Descriptions

**Area Data Default Table**

| | AREA 1 | | AREA 2 | |
|---|---|---|---|---|
| | Location | Default | Location | Default |
| AWAY Exit Time (sec) | [1] | 60 | [12] | 60 |
| STAY/NIGHT Exit Time (sec) | [2] | 60 | [13] | 60 |
| Entry Time 1 (sec) | [3] | 20 | [14] | 20 |
| Entry Time 2 (sec) | [4] | 40 | [15] | 40 |
| Pre-Alarm Time (sec) | [5] | 0 | [16] | 0 |
| 'B' Key Alarms | [6] | 2 | [17] | 2 |
| 'C' Key Alarms | [7] | 1 | [18] | 1 |
| Closing Ringback | [8] | 0 | [19] | 0 |
| Burglar Audible Lockout | [9] | 0 | [20] | 0 |
| Swinger Shunt | [10] | 0 | [21] | 0 |
| Area Attributes | [11] | H-09 | [22] | H-09 |

The following table refers to programming locations 1 through 22.

| Item | Valid Range | Description |
|---|---|---|
| AWAY Exit Delay Time | 0 to 255 seconds | Time in seconds for all Burglar zones, may be audibly annunciated. (See Section 3.3, Programming Note 1.) |
| STAY & NIGHT Exit | 0 to 255 seconds<br>Time | Time in seconds for all Burglar zones, always silent. |
| Entry Delay Time 1 | 0 to 255 seconds | Time in seconds to enter Burglar zones defined as Delay #1, may be audibly annunciated. |
| Entry Delay Time 2 | 0 to 255 seconds | Time in seconds to enter Burglar zones defined as Delay #2, may be audibly annunciated. |
| Pre-Alarm Warning Time | 0 to 255 seconds | Time in seconds to correct a false alarm, always audible. (See Section 3.3, Programming Note 2.) |
| 'B' Key Alarms | 0 = No Keypad Sounder or Bell Output (invisible)<br>1 = Keypad Sounder Only<br>2 = Keypad Sounder and Bell Output | Defines the annunciation of an alarm activated by the Police key. |
| 'C' Key Alarms | 0 = No Keypad Sounder or Bell Output (visible)<br>1 = Keypad Sounder Only<br>2 = Keypad Sounder and Bell Output | Defines the annunciation of an alarm activated by the Medical/ Emergency key. |
| Closing Ringback | 0 = Ringback Output<br>1 = Ringback Output and Keypads<br>2 = Ringback Output, Bell Output and Keypads | Determines how the system annunciates the successful transmission of an AWAY closing report to the Central Station. |
| Burglar Audible Lockout | 0 = No Lockout<br>1 to 15 = Alarms for an Area | Determines the number of times that a Bell Output may be activated during an armed cycle, resets with disarm. |
| Swinger Shunt | 0 = No Shunt<br>1 to 15 = Violations for a Zone | Determines the number of violations that may occur from an armed burglar zone before that zone is automatically bypassed. |

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| | | |
|---|---|---|
| Area Attributes | 00 to FF<br>(see the Area Attribute Table) | Bypassing - enables selective bypassing of any zone that is defined as bypassable in this area.<br>Force-Arming - permits arming of the area with zones faulted. Faulted zones are temporarily bypassed and return to operation if the fault is corrected. Only zones that are defined as bypassable may be force-armed. See Section 3.3, Programming Note 4.<br>Exit Arm - see Section 3.3, Programming Note 3.<br>3 Second Panic Keys - requires all panic keys to be pressed and held for approximately 3 seconds in order to activate alarm condition. Only pertains to Control Stations that are Primary to this area.<br>Double Press Panic Keys - requires all panic keys to be pressed twice within one second to activate. Only pertains to control stations that are Primary to this area.<br>Two Button Arm - enables quick arming by pressing AWAY, STAY, or NIGHT followed by the ENTER key. Cannot be used with force-arming<br>Double Press Arm - enables quick arming by pressing AWAY, STAY, or NIGHT twice. Cannot be used with force-arming.<br>Open After Alarm - enables opening reports to be reported only if they occur after an alarm. All "opening" events will be logged in the Event Log regardless of setting.<br>Display Bypass Armed - when armed in STAY or NIGHT mode with bypassed or force-armed zones, Control Stations with the area as the Primary area will indicate that there are zones that are bypassed. |

### Area Attribute Table

| **Enter For:** | **0** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **A** | **B** | **C** | **D** | **E** | **F** |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **First Digit** | | | | | | | | | | | | | | | | |
| All Features Below Disabled | * | | | | | | | | | | | | | | | |
| Two Button Arm | | * | | * | | * | | * | | * | | * | | * | | * |
| Double Button Press Arm | | | * | * | | | * | * | | | * | * | | | * | * |
| Open After Alarm | | | | | * | * | * | * | | | | | * | * | * | * |
| Display Bypassed Armed | | | | | | | | | * | * | * | * | * | * | * | * |
| **Second Digit** | | | | | | | | | | | | | | | | |
| Double Press Panic Keys | * | * | * | * | * | * | * | * | | | | | | | | |
| Bypass | | * | | * | | * | | * | | * | | * | | * | | * |
| Force-Arm | | | * | * | | | * | * | | | * | * | | | * | * |
| Exit Arm | | | | | * | * | * | * | | | | | * | * | * | * |
| 3 Second Panic Keys | | | | | | | | | * | * | * | * | * | * | * | * |

**NOTE**: If the First Digit entered is '1', it must be entered as '01'. A = 10; B = 11; C = 12; D = 13; E = 14; F = 15

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## 3.2.2 Keypad Data Descriptions

### Keypad Data Default Table

| | KEYPAD 1 | | KEYPAD 2 | | KEYPAD 3 | | KEYPAD 4 | | KEYPAD 5 | | KEYPAD 6 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Loc | Default | Loc | Default | Loc | Default | Loc | Default | Loc | Default | Loc | Default |
| Keypad Type | LED | | LED | | SSD | | SSD | | LCD/VFD | | LCD/VFD | |
| Keypad Attribute | [23] | H-1C | [25] | H-1C | [27] | H-1C | [29] | H-1C | [31] | H-1C | [33] | H-1E |
| Access Time (sec) | [24] | 5 | [26] | 5 | [28] | 5 | [30] | 5 | [32] | 5 | [34] | 5 |

The following table refers to programming locations 23 through 34.

| Item | Valid Range | Description |
|---|---|---|
| Keypad Attributes | 00 to FF<br><br>(see the Keypad Attribute table.) | Primary Area 1 or 2 - determines which area the Control Station's status indicator will reflect and which area the Control Station will display area status for when it is idle.<br>Secondary Area Enabled - see the Programming Note 5 in Section 3.3.<br>'A' Key Enabled - defines if the Fire key is to be enabled at this Control Station<br>'B' Key Enabled - defines if the Police key is to be enabled at this Control Station.<br>'C' Key Enabled - defines if the Medical/Emergency key is to be enabled at this Control Station.<br>Silent Exit Time - silences the exit alert at the Control Station.<br>Silent Entry Time - silences the entry alert at the Control Station. This does not affect Pre-Alarm Warning Time.<br>Silent Trouble - silences the trouble conditions at the Control Station. |
| Access Time * | 0 = Toggle ,<br>1 - 255 seconds | Time in seconds for an access output activated from this Control Station. Toggle access feature allows the output to latch ON/OFF.<br>All access outputs assigned to this Control Station are affected when the access function and a valid code is entered for this Control Station (see Section 3.2.5). It is not area dependent. Typically used to activate electrically operated door strikes. |

* This control is not a UL Listed Access Control System. The access feature should not be used in UL Listed installations.

### Keypad Attribute Table

| Enter For: | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **First Digit** | | | | | | | | | | | | | | | | |
| All Features Below Disabled | * | | | | | | | | | | | | | | | |
| 'C' Key Enabled | | * | | * | | * | | * | | * | | * | | * | | * |
| Silent Exit Time | | | * | * | | | * | * | | | * | * | | | * | * |
| Silent Entry Time | | | | | * | * | * | * | | | | | * | * | * | * |
| Silent Troubles | | | | | | | | | * | * | * | * | * | * | * | * |
| **Second Digit** | | | | | | | | | | | | | | | | |
| Primary Area 1 | * | | | | * | | | | * | | | | * | | | |
| Primary Area 2 | | * | | | | * | | | | * | | | | * | | |
| Primary Area 1, Secondary Area 2 | | | * | | | | * | | | | * | | | | * | |
| Primary Area 2, Secondary Area 1 | | | | * | | | | * | | | | * | | | | * |
| 'A' Key Enabled | | | | | * | * | * | * | | | | | * | * | * | * |
| 'B' Key Enabled | | | | | | | | | * | * | * | * | * | * | * | * |

**NOTE**: If the First Digit entered is '1', it must be entered as '01'. A = 10; B = 11; C = 12; D = 13; E = 14; F = 15

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## 3.2.3 Zone Data Descriptions

### Zone Data Default Table

| | Zone Type | | Area | | Expansion Zone | | Burglar Zone Attribute | | Zone Attribute | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Loc | Default | Loc | Default | Loc | Default | Loc | Default | Loc | Default |
| Zone 01 | [35] | 1 | [36] | 1 | | | [37] | H-0D | [38] | H-37 |
| Zone 02 | [39] | 1 | [40] | 1 | | | [41] | H-03 | [42] | H-37 |
| Zone 03 | [43] | 1 | [44] | 1 | | | [45] | H-03 | [46] | H-37 |
| Zone 04 | [47] | 1 | [48] | 1 | | | [49] | H-0C | [50] | H-37 |
| Zone 05 | [51] | 1 | [52] | 1 | | | [53] | H-0C | [54] | H-37 |
| Zone 06 | [55] | 1 | [56] | 1 | | | [57] | H-0C | [58] | H-37 |
| Zone 07 | [59] | 1 | [60] | 1 | | | [61] | H-0C | [62] | H-37 |
| Zone 08 | [63] | 1 | [64] | 1 | | | [65] | H-0C | [66] | H-37 |
| Zone 09 | [67] | 1 | [68] | 1 | | | [69] | H-0C | [70] | H-37 |
| Zone 10 | [71] | 1 | [72] | 1 | | | [73] | H-0C | [74] | H-37 |
| Zone 11 | [75] | 1 | [76] | 1 | | | [77] | H-0C | [78] | H-37 |
| Zone 12 | [79] | 1 | [80] | 1 | | | [81] | H-0C | [82] | H-37 |
| Zone 13 | [83] | 1 | [84] | 0 | [85] | 0 | [86] | H-0C | [87] | H-37 |
| Zone 14 | [88] | 1 | [89] | 0 | [90] | 0 | [91] | H-0C | [92] | H-37 |
| Zone 15 | [93] | 1 | [94] | 0 | [95] | 0 | [96] | H-0C | [97] | H-37 |
| Zone 16 | [98] | 1 | [99] | 0 | [100] | 0 | [101] | H-0C | [102] | H-37 |
| Zone 17 | [103] | 1 | [104] | 0 | [105] | 0 | [106] | H-0C | [107] | H-37 |
| Zone 18 | [108] | 1 | [109] | 0 | [110] | 0 | [111] | H-0C | [112] | H-37 |
| Zone 19 | [113] | 1 | [114] | 0 | [115] | 0 | [116] | H-0C | [117] | H-37 |
| Zone 20 | [118] | 1 | [119] | 0 | [120] | 0 | [121] | H-0C | [122] | H-37 |
| Zone 21 | [123] | 1 | [124] | 0 | [125] | 0 | [126] | H-0C | [127] | H-37 |
| Zone 22 | [128] | 1 | [129] | 0 | [130] | 0 | [131] | H-0C | [132] | H-37 |
| Zone 23 | [133] | 1 | [134] | 0 | [135] | 0 | [136] | H-0C | [137] | H-37 |
| Zone 24 | [138] | 1 | [139] | 0 | [140] | 0 | [141] | H-0C | [142] | H-37 |
| Zone 25 | [143] | 1 | [144] | 0 | [145] | 0 | [146] | H-0C | [147] | H-37 |
| Zone 26 | [148] | 1 | [149] | 0 | [150] | 0 | [151] | H-0C | [152] | H-37 |
| Zone 27 | [153] | 1 | [154] | 0 | [155] | 0 | [156] | H-0C | [157] | H-37 |
| Zone 28 | [158] | 1 | [159] | 0 | [160] | 0 | [161] | H-0C | [162] | H-37 |
| Zone 29* | [163] | 0 | | | | | | | [164] | H-63 |
| Zone 30** | [165] | 2 | | | | | | | [166] | H-63 |

* Zone 29 is the Two-Wire Smoke Zone on the Expander Module
** Zone 30 is the Two-Wire Smoke Zone on the Control Board

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The following table refers to programming locations 35 - 166.

| Item | Valid Range | Description |
|---|---|---|
| Zone Type<br><br>**Note: Zone 29 & 30 may only be programmed as 24 Hour Fire, Verified Fire or Not Used; any other will be interpreted as Not Used. All other zones may be programmed as any zone type.** | 0 = Not Used<br>1 = Burglar<br>2 = 24 Hour Fire<br>3 = 24 Hour Holdup<br>4 = 24 Hour Auxiliary<br>5 = Momentary Keyswitch (Arm AWAY/Disarm)<br>6 = 24 Hour Communicator<br>7 = 24 Hour Burglar Tamper<br>8 = Universal<br>9 = Universal Logged<br><br>10 = Verified Fire<br><br>11 = Fire Supervisory<br>12 = Listen-In Module Input | <br><br><br><br><br><br>Critical Condition Monitor (CCM), no local display<br><br>May be used to activate an output that is programmed as Universal. Only the Universal Logged is posted in the Event Log when activated. No events are reported to the Central Station.<br>Upon activation, control resets switched smoke power. The loop is ignored for 30 seconds. Subsequent activation within the next 60 seconds causes an alarm.<br><br>See Section 3.3, Programming Note 11. |
| Area Number | 0 = Disable<br>1 = Area 1<br>2 = Area 2 | Determines which area the zone belongs to. Fire zones are visible to both areas regardless of settings. |
| Expansion Zone | 0 = ZXEXP Zone<br><br>1 = RF Gateway 1 Zone<br>2 = RF Gateway 2 Zone<br>3 = ZEM Zone | Determines which data bus device the system will poll to get the zone's status data.<br>Reserved for future use.<br>Reserved for future use.<br>Reserved for future use. |
| Burglar Zone Attributes | 00 to FF<br>(see the Burglar Zone Attribute Table.) | See Section 3.3, Programming Notes 2, 6, and 7 for a complete description of the Burglar Zone Attributes. |
| Zone Attributes | 00 to FF<br>(see the Zone Attribute Table.) | Bell Output on Alarm - determines if Bell Output activates due to an alarm from the zone. See Section 3.3, Programming Note 8.<br>Keypad Sounder on Alarm - determines if control station sounder activates due to an alarm from the zone. See Section 3.3, Programming Note 8.<br>Bypassable - determines if a zone may be bypassed or force-armed. See Section 3.3, Programming Note 9.<br>Senior Watch - see Section 3.3, Programming Note 10.<br>Zone Supervision - determines how opens and shorts are handled.<br>Fast Zones - only applies to zones 1 - 12. A Fast Zone on zones 1 - 6 has a loop response time of 80 msec. A Fast Zone on zones 7 - 12 has a loop response time of 20 msec. |

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## Burglar Zone Attribute Table

| Enter For: | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **First Digit** | | | | | | | | | | | | | | | | |
| Standard (all below disabled) | * | | | | | | | | | | | | | | | |
| Chime Always | | * | | * | | * | | * | | * | | * | | * | | * |
| Verifying | | | * | * | | | * | * | | | * | * | | | * | * |
| Self-Verifying | | | | | * | * | * | * | | | | | * | * | * | * |
| Sentry Test | | | | | | | | | * | * | * | * | * | * | * | * |
| **Second Digit** | **Armed AWAY only (interior)** | | | | **Armed AWAY & STAY** | | | | **Armed AWAY & NIGHT** | | | | **Armed AWAY, STAY & NIGHT (perimeter)** | | | |
| Instant | * | | | | * | | | | * | | | | * | | | |
| Delay 1 | | * | | | | * | | | | * | | | | * | | |
| Delay 2 | | | * | | | | * | | | | * | | | | * | |
| Follower | | | | * | | | | * | | | | * | | | | * |
| Arm STAY | | | | | * | * | * | * | | | | | * | * | * | * |
| Arm NIGHT | | | | | | | | | * | * | * | * | * | * | * | * |

## Zone Attribute Table

| Enter For: | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **First Digit** | | | | | | | | | | | | | | | | |
| Invalid | * | | | | | | | | * | | | | | | | |
| Alarm on Open - No Trouble (EOL optional) | | * | | | | | | | | * | | | | | | |
| Alarm on Short - No Trouble (EOL optional) | | | * | | | | | | | | * | | | | | |
| Alarm on Open or Short - No Trouble (with EOL) | | | | * | | | | | | | | * | | | | |
| Trouble on Open or Short | | | | | * | | | | | | | | * | | | |
| Alarm on Open - Trouble on Short | | | | | | * | | | | | | | | * | | |
| Alarm on Short - Trouble on Open | | | | | | | * | | | | | | | | * | |
| Alarm on Open or Short - Trouble on Open when Disarmed (Burg only) | | | | | | | | * | | | | | | | | * |
| Fast Zones | | | | | | | | | | * | * | * | * | * | * | * |
| **Second Digit** | | | | | | | | | | | | | | | | |
| All Features Below Disabled | * | | | | | | | | | | | | | | | |
| Bell Output on Alarm | | * | | * | | * | | * | | * | | * | | * | | * |
| Keypad Sounder on Alarm | | | * | * | | | * | * | | | * | * | | | * | * |
| Bypassable | | | | | * | * | * | * | | | | | * | * | * | * |
| Senior Watch | | | | | | | | | * | * | * | * | * | * | * | * |

**NOTE**: If the First Digit entered is ‘1’, it must be entered as ‘01’. A = 10; B = 11; C = 12; D = 13; E = 14; F = 15

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### 3.2.4 User Data Description

The user data block is used to set the level of authority that determines the level of activity the user can perform on the control and the areas that a particular user can perform operations on. The passcodes associated with each user may only be programmed through user level programming as described in the appropriate User Guide.

#### User Data Code Default Table

| | Code | Authority Level | | Operation Area | |
|---|---|---|---|---|---|
| | Default | Loc | Default | Loc | Default |
| User 01 | 1234 | [167] | 10 | [168] | 1 |
| User 02 | 0000 | [169] | 6 | [170] | 1 |
| User 03 | 0000 | [171] | 6 | [172] | 1 |
| User 04 | 0000 | [173] | 6 | [174] | 1 |
| User 05 | 0000 | [175] | 6 | [176] | 1 |
| User 06 | 0000 | [177] | 6 | [178] | 1 |
| User 07 | 0000 | [179] | 6 | [180] | 1 |
| User 08 | 0000 | [181] | 6 | [182] | 1 |
| User 09 | 0000 | [183] | 6 | [184] | 1 |
| User 10 | 0000 | [185] | 6 | [186] | 1 |
| User 11 | 0000 | [187] | 6 | [188] | 1 |
| User 12 | 0000 | [189] | 6 | [190] | 1 |
| User 13 | 0000 | [191] | 6 | [192] | 1 |
| User 14 | 0000 | [193] | 6 | [194] | 1 |
| User 15 | 0000 | [195] | 6 | [196] | 1 |
| User 16 | 0000 | [197] | 6 | [198] | 1 |
| User 17 | 0000 | [199] | 6 | [200] | 1 |
| User 18 | 0000 | [201] | 6 | [202] | 1 |
| User 19 | 0000 | [203] | 6 | [204] | 1 |
| User 20 | 0000 | [205] | 6 | [206] | 1 |
| User 21 | 0000 | [207] | 6 | [208] | 1 |
| User 22 | 0000 | [209] | 6 | [210] | 1 |
| User 23 | 0000 | [211] | 6 | [212] | 1 |
| User 24 | 0000 | [213] | 6 | [214] | 1 |
| User 25 | 0000 | [215] | 6 | [216] | 1 |
| User 26 | 0000 | [217] | 6 | [218] | 1 |
| User 27 | 0000 | [219] | 6 | [220] | 1 |
| User 28 | 0000 | [221] | 6 | [222] | 1 |
| User 29 | 0000 | [223] | 6 | [224] | 1 |
| User 30 | 0000 | [225] | 6 | [226] | 1 |
| User 31 | 0000 | [227] | 6 | [228] | 1 |
| User 32 | 0000 | [229] | 6 | [230] | 1 |
| User 33 | 0000 | [231] | 6 | [232] | 1 |
| User 34 | 0000 | [233] | 6 | [234] | 1 |
| User 35 | 0000 | [235] | 6 | [236] | 1 |
| User 36 | 0000 | [237] | 6 | [238] | 1 |
| User 37 | 0000 | [239] | 6 | [240] | 1 |
| User 38 | 0000 | [241] | 6 | [242] | 1 |
| User 39 | 0000 | [243] | 6 | [244] | 1 |
| User 40 | 0000 | [245] | 6 | [246] | 1 |
| User 41 | 0000 | [247] | 6 | [248] | 1 |
| User 42 | 0000 | [249] | 6 | [250] | 1 |
| User 43 | 0000 | [251] | 6 | [252] | 1 |
| User 44 | 0000 | [253] | 6 | [254] | 1 |
| User 45 | 0000 | [255] | 6 | [256] | 1 |
| User 46 | 0000 | [257] | 6 | [258] | 1 |
| User 47 | 0000 | [259] | 6 | [260] | 1 |
| User 48 | 0000 | [261] | 6 | [262] | 1 |
| User 49 | 0000 | [263] | 6 | [264] | 1 |
| User 50 | 1245 | [265] | 10 | [266] | 3 |

The following table refers to programming locations 167 - 266

| Item | Valid Range | Description |
|---|---|---|
| Authority Level | 0 to 15 | See the Authority Level table on following page for options available . (Enter 0 to disable) |
| Areas of Operation | 0 = Disabled<br>1 = Area 1<br>2 = Area 2<br>3 = Both | Determines which areas the passcode can be used to perform operations on. If a 3 is selected, the control station it is used on must be programmed for both areas in order to access both areas. |

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## Authority Levels

Authorities levels 1 through 10 are the general purpose levels with level 10 having the highest capabilities. Level 11 is for limited disarm capabilities (ie: Maid's passcode). Level 12 is for User on Premise reporting. Level 13 is for Duress reporting. For High Level Security applications, only levels 14 and 15 should be used. If levels 14 and 15 are used, all other users should be set to Level 0 (zero).

Level 14 needs **2 different level 14 passcodes** in order to activate any of the options available. The Control Station will beep 4 times after the 1st passcode is entered signifying that it has been accepted. The 2nd passcode may then be entered. Level 15 is for maintenance activities only. Level 15 does not allow the user to arm or disarm the system, only to maintain it.

See the table below for the options available for each authority level. To disable all capabilities, set the authority level to zero (0).

| | Authority Level | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Capabilities** | **1** | **2** | **3** | **4** | **5** | **6** | **7** | **8** | **9** | **10** | **11** | **12** | **13** | **14** | **15** |
| Access from Keypad | * | * | * | * | * | * | * | * | * | * | * | | | ** | |
| Chime Enable/Disable | * | * | * | * | * | * | * | * | * | * | * | | | | |
| Silence Bell without Disarm | | * | * | * | | | | | | | | | | | |
| Arm (AWAY, STAY, NIGHT) | | | * | * | * | * | * | * | * | * | * | * | | ** | |
| Change Arming Level | | | * | * | * | * | * | * | * | * | * | * | | ** | |
| Remote Connect | | | | * | * | * | * | * | * | * | * | | | ** | ** |
| Silence/Cancel Alarm | | | | | * | * | * | * | * | * | | | | ** | |
| Silence Trouble | | | | | * | * | * | * | * | * | * | | | ** | |
| Disarm | | | | | * | * | * | * | * | * | | | | ** | |
| View Alarm Memory | | | | | * | * | * | * | * | * | * | | | | ** |
| Reset Smoke Power | | | | | * | * | * | * | * | * | * | | | ** | |
| Bypass Zones | | | | | | * | * | * | * | * | * | | | | |
| Force-Arm | | | | | | * | * | * | * | * | * | * | | ** | |
| Abort Exit Arm | | | | | | * | * | * | * | * | | | | | |
| Walk Test | | | | | | | * | * | * | * | | | | | ** |
| Comm Test | | | | | | | * | * | * | * | | | | | ** |
| Bell Test | | | | | | | * | * | * | * | | | | | ** |
| Battery Test | | | | | | | * | * | * | * | | | | | ** |
| Keypad Test | | | | | | | * | * | * | * | | | | | ** |
| Delay Scheduled Arming | | | | | | | | * | * | * | | | | ** | |
| View & Print Event Log | | | | | | | | * | * | * | | | | | ** |
| Edit Scheduled Arming | | | | | | | | | * | * | | | | | ** |
| Edit Latch Key Operation | | | | | | | | | * | * | | | | | |
| Set Clock | | | | | | | | | * | * | | | | | |
| Abort Auto-Arming | | | | | | | | | * | * | | | | | ** |
| Edit Zone Names | | | | | | | | | * | * | | | | | |
| Edit User Codes | | | | | | | | | | * | | | | | ** |
| Disarm if Armed by a Level 11 User Passcode | | | | | | | | | | | * | | | | |
| Silence/Cancel Alarm if not Armed or if Armed by a Level 11 Passcode | | | | | | | | | | | * | | | | |
| Silence Bell without Disarm if Armed by other than a Level 11 Passcode | | | | | | | | | | | * | | | | |
| Access from Keypad with User on Premises Report | | | | | | | | | | | | * | | | |
| Silence/Cancel Alarm with User on Premises Report | | | | | | | | | | | | * | | | |
| Disarm with User on Premises Report | | | | | | | | | | | | * | | | |
| Access from Keypad with Duress | | | | | | | | | | | | | * | | |
| Arm (AWAY, STAY, NIGHT) with Duress | | | | | | | | | | | | | * | | |
| Change Arming Level with Duress | | | | | | | | | | | | | * | | |
| Force-Arm with Duress | | | | | | | | | | | | | * | | |
| Silence/Cancel Alarm with Duress | | | | | | | | | | | | | * | | |
| Disarm with Duress | | | | | | | | | | | | | * | | |

** For High Level Security applications only

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The Installer passcode has the authority level to perform the following operations:

- •Access from Keypad
- •Arm (AWAY, STAY, NIGHT)
- •Disarm if Armed by an Installer
- •Change Arming Level
- •Default User Code 1
- •Edit Zone Names
- •Force-Arm
- •View & Print Event Log
- •Bypass Zones
- •Chime Enable/Disable
- •Default Function Map
- •Edit Function Map (except Zone Names & User Codes)
- •Silence/Cancel Alarm if not Armed or if Armed by Installer

Silence Bell without Disarm if Armed by other than Installer

Initiate Call to RPM/2 Pro
Remote Connect
Reset Smoke Power
Program RF Data
RF Signal Strength
Set Clock
Silence Trouble
View Alarm Memory
Battery Test
Bell Test
Comm Test
Keypad Test
Walk Test
Adjust Days Until Next Auto Comm Test

• Disabled if Lockout Local Programming is enabled (See table in Section 3.2.14.)

### 3.2.5 Output Definitions Description

This data block is used to assign the programmable outputs. The control is equipped with one programmable on-board output (PGO1) and one bell output (BELL). Additional outputs can be obtained in groups of ten by the addition of output driver modules (ZXODM) or a zone expander (ZXEXP). The 10 outputs on ODM2 are identical to the 10 outputs on the zone expander.

Each output is assigned a condition (i.e.: Burglar, Fire, Status, Alarm) and areas to which it should respond when the condition is active in those areas. For access conditions, the output is assigned to a control station(s). Output conditions 1 - 8 ignore the area setting.

#### Output Definitions Default Table

| | Condition | | Area or Keypad | |
|---|---|---|---|---|
| | Loc | Default | Loc | Default |
| Control - Bell | | | | |
| Output 00 | | | [267] | 1 |
| Control | | | | |
| Output 01 | [268] | 13 | [269] | 1 |
| ODM 1 | | | | |
| Output 01 | [270] | 9 | [271] | 1 |
| Output 02 | [272] | 1 | [273] | 1 |
| Output 03 | [274] | 10 | [275] | 1 |
| Output 04 | [276] | 11 | [277] | 1 |
| Output 05 | [278] | 15 | [279] | 1 |
| Output 06 | [280] | 26 | [281] | 1 |
| Output 07 | [282] | 14 | [283] | 1 |
| Output 08 | [284] | 21 | [285] | 1 |
| Output 09 | [286] | 29 | [287] | 1 |
| Output 10 | [288] | 34 | [289] | 1 |

| | Condition | | Area or Keypad | |
|---|---|---|---|---|
| | Loc | Default | Loc | Default |
| Zone Expander or ODM 2 | | | | |
| Output 01 | [290] | 9 | [291] | 1 |
| Output 02 | [292] | 1 | [293] | 1 |
| Output 03 | [294] | 10 | [295] | 1 |
| Output 04 | [296] | 11 | [297] | 1 |
| Output 05 | [298] | 15 | [299] | 1 |
| Output 06 | [300] | 26 | [301] | 1 |
| Output 07 | [302] | 14 | [303] | 1 |
| Output 08 | [304] | 21 | [305] | 1 |
| Output 09 | [306] | 29 | [307] | 1 |
| Output 10 | [308] | 34 | [309] | 1 |

* Output conditions 34 and 35 add combinations of keypads 1 - 6. Conditions 9 - 33 are specified as a combination of Areas 1 & 2.

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The following table refers to programming locations 267 through 309.

| Item | Valid Range | |
|---|---|---|
| Output Condition | See Section 3.2.5.2 for complete descriptions | |
| | 0 = Not Used | 19 = Exit Time |
| | 1 = Fire Alarm | 20 = Entry Time |
| | 2 = Fire Supervisory | 21 = Pre-Alarm Warning Time |
| | 3 = Duress | 22 = Annunciation |
| | 4 = Low Battery | 23 = Auto-Arm Warning |
| | 5 = Failed to Comm | 24 = Closing Ringback |
| | 6 = Telco Line Fault | 25 = Trouble |
| | 7 = Telco Line Seized | 26 = Chime |
| | 8 = Ground Start | 27 = Universal |
| | 9 = Burglar Alarm | 28 = Listen-In Module Output |
| | 10 = Hold-up Alarm | 29 = Lamp Trigger |
| | 11 = Auxiliary Alarm | 30 = Key 4 Output |
| | 12 = Bell Output Trigger | 31 = Key 5 Output |
| | 13 = Violation | 32 = Key 6 Output |
| | 14 = Ready | 33 = RF Annunciator |
| | 15 = Armed AWAY | 34 = Access by Keypad |
| | 16 = Armed STAY | 35= Quick Access by Keypad |
| | 17 = Armed NIGHT | 101 - 130 = Zone (1 to 30) Violated |
| | 18 = Armed and Exit Time Expired | 201 - 230 = Zone (1 to 30) In Alarm or Senior Watch |
| Areas of Operation | (for Output Conditions 9 - 33) | [add up selections] |
| | 1 = Area 1 | (for Output Conditions 34 & 35) |
| | 2 = Area 2 | 1 = Control Station 1 |
| | 3 = Both | 2 = Control Station 2 |
| | | 4 = Control Station 3 |
| | | 8 = Control Station 4 |
| | | 16 = Control Station 5 |
| | | 32 = Control Station 6 |

If the Output Condition is “Ready”, “Armed AWAY”, “Armed STAY”, “Armed NIGHT”, “Armed & Exit Time Expired”, “Exit Time”, “Entry Time”, “Annunciation”, “Key 4 Output”, “Key 5 Output”, or “Key 6 Output”, then the Areas of Operation should be limited to a single area.

### 3.2.5.1 Bell Output Activation

The Bell Output is assignable to a combination of areas and may activate due to an alarm condition in any of the areas. A Fire Alarm from a Fire or Verified Fire zone or the ‘A’ Key will always activate the Bell Output. A Burglar Alarm, a Burglar Tamper, a Holdup Alarm, the ‘B’ Key, an Auxiliary Alarm, or the ‘C’ Key may activate the Bell Output.

Each alarm type is programmable for its Bell Output operation. (See Section 3.2.6.) If more than one alarm type is active at the same time, the Bell Output will annunciate the highest priority alarm. The priority order is Fire, Auxiliary, Burglar, and Holdup.

If any of the Bell Output’s areas have Closing Ringback Annunciation set to “Ringback Output, Keypads, and Bell Output”, the Bell Output will emit a two (2) second ringback tone. (See Section 3.2.1.)

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### 3.2.5.2 Programmable Output Activation

The programmable outputs will be activated according to their Output Condition listed in the following table. The output will go ON STEADY for the following conditions unless otherwise specified in the table.

| Condition | Output Becomes Active When: |
|---|---|
| Fire Alarm | A Fire or Verified Fire zone or an 'A' Key is in alarm. |
| Fire Supervisory | A zone defined as Fire Supervisory is in alarm. |
| Duress | A Duress code has been used. To turn off, press the CLEAR key for 3 seconds. |
| Panel Low Battery | A Panel Low Battery trouble condition occurs. |
| Failed to Comm | A Failed to Comm trouble condition occurs. |
| Telco Line Fault | A Telco Line Fault trouble condition occurs. |
| Telco Line Seized | The system seizes the telephone line for an RPM connection or prior to making a call to the Central Station. |
| Ground Start | A Telco ground start circuit is triggered for one second. |
| Burglar Alarm | A Burglar or a Burglar Tamper defined zone is in alarm. |
| Holdup Alarm | A Holdup zone or an 'B' Key is in alarm. |
| Auxiliary Alarm | An Auxiliary zone or an 'C' Key is in alarm. |
| Bell Output Trigger | In the same manner as the Bell Output (see Section 3.2.5.1). |
| Violation | A Fire, Fire Supervisory, Burglar, Auxiliary, Visible Holdup or Burglar Tamper is in alarm. |
| Ready | The area is ready to arm. |
| Armed AWAY | The area has been armed in the AWAY mode. |
| Armed STAY | The area has been armed in the STAY mode. |
| Armed NIGHT | The area has been armed in the NIGHT mode. |
| Armed & Exit Time Expired | The area has been armed in any way and the exit time has expired. |
| Exit Time | The exit time starts in its area due to an AWAY, STAY, or NIGHT arm. The output will go ON STEADY until the last ten seconds, then it will PULSE for the last ten seconds. When the Exit Time expires, it will go ON STEADY for two seconds. |
| Entry Time | The entry time starts in its area. The output will stay ON STEADY until the last ten seconds of entry time. During the last ten seconds of entry time, it will PULSE. |
| Pre-Alarm Warning Time | Any of its areas are in Pre-Alarm Warning Time. The output will PULSE when any of its areas are in Pre-Alarm Warning Time. |
| Annunciation | The Annunciation output operates like a combination of the Exit Time, Entry Time, and Pre-Alarm Warning Time outputs. When the exit time starts in its area due to an AWAY, STAY, or NIGHT arm, the output will go ON STEADY until the last ten seconds. During the last ten seconds, it will PULSE and when the exit time expires, it will go ON STEADY for two seconds. When the entry time starts in its area, the output will go ON STEADY until the last ten seconds of entry time. During the last ten seconds, it will PULSE. When in Pre-Alarm Warning Time, the output will PULSE. |
| Auto Arm Warning | The timer activates for 3 seconds for each minute of the ten minutes left before Auto-Arming occurs. It will also activate at one minute and two minutes until before an Exit Arm occurs. |
| Closing Ringback | A Closing Report due to an AWAY arm from a Control Station or keyswitch has been successfully transmitted to the Central Station. |
| Trouble | A System Trouble condition is present. (Following this table is a list of Trouble Conditions.) |
| Chime | A Disarmed Chime Always Burglar zone in any of its areas is violated, a Disarmed Perimeter (Arm on STAY & Arm on NIGHT) Burglar zone in any of its areas is violated and that area has Chime Enabled. |
| Universal | A Universal or Universal Logged zone is violated. (See Section 3.3, Programming Note 16.) |
| Listen-In | An alarm event is reported to the Central Station from one of the output's areas. (See Section 3.3, Programming Note 11.) |
| Lamp Trigger | Any of its areas are in exit time, entry time and five minutes after entry time. The Output will go ON STEADY when its areas are in entry time and will stay ON STEADY until five minutes after entry time expires or five minutes after disarm (whichever is shorter). (See Section 3.3, Programming Note 17.) |
| Key 4 Output | ENTER + Key #4 is pressed on a keypad primary to its area. May be used to toggle an output ON/OFF. |
| Key 5 Output | ENTER + Key #5 is pressed on a keypad primary to its area. May be used to toggle an output ON/OFF. |

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| | |
|---|---|
| Key 6 Output | ENTER + Key #6 is pressed on a keypad primary to its area. May be used to toggle an output ON/OFF. |
| RF Annunciator | Reserved for future use. |
| Access by Keypad | Any of its Control Stations have an Access timer that is running or ON. (See Section 3.3, Programming Note 18.) |
| Quick Access By Keypad | Any of its Control Stations have a Quick Access timer that is running or ON. (See Section 3.3, Programming Note 18.) |
| Zone Violated | The zone is violated |
| Zone in Alarm or Senior Watch | The zone goes into alarm. For a Burglar zone, it will deactivate when the alarm is silenced. For Fire, Holdup, Auxiliary, Burglar Tamper, Verified Fire, and Fire Supervisory zones, it will deactivate when the zone restores after the alarm has been silenced. The zone goes into Senior Watch Trouble until the condition restores (See Section 3.3, Programming Note 10.) |

The list of Trouble conditions are as follows:

AC Power Failure
Communication Failure
Smoke Trouble
Missing Keypad
Fire Trouble
RF Jamming
RF Point Low Battery
Low Battery
Silenced Fire Alarm
Call RPM Failed
Zone Trouble
Telco Line Fault
RF Point Not Reporting
Memory Error
Fire Supervisory
Silenced Burglar Tamper
Zone Missing
Bell Fault
RF Point Tampering

## 3.2.6 Global System Options Description

### Global System Options Default Table

| | Time | |
|---|---|---|
| | **Loc** | **Default** |
| Fire Cutoff Time (min) | [310] | 0 |
| Burglar Cutoff Time (min) | [311] | 10 |
| Holdup Cutoff Time (min) | [312] | 10 |
| Aux Cutoff Time (min) | [313] | 10 |
| Universal Output Time (sec) | [314] | 0 |
| Delay Before Dial (sec) | [315] | 0 |
| Fire Delay Before Dial (sec) | [316] | 0 |

| | Time | |
|---|---|---|
| | **Loc** | **Default** |
| AC Failure Delay (min)* | [317] | 30 |
| Senior Watch Time (hrs) | [318] | 24 |
| System Attributes | [319] | H-31 |
| Passcode Attempts | [320] | 8 |
| AC Cycles ** | [321] | 0 |

* ODD = Silent, EVEN = Audible

** 0 = 60 Hz, 1 = 50 Hz

The following table refers to programming locations 310 through 321:

| Item | Valid Range | Description |
|---|---|---|
| Fire Cutoff Time | 0 = No Cutoff,<br>1 to 255 minutes | Determines the time in minutes for Bell Output and Fire Alarm signaling device. |
| Burglar Cutoff Time | 0 = No Cutoff,<br>1 to 255 minutes | Determines the time in minutes for Bell Output and Burglar Alarm signaling device. |
| Holdup Cutoff Time | 0 = No Cutoff,<br>1 to 255 minutes | Determines the time in minutes for Bell Output and Holdup Alarm signaling device. |
| Auxiliary Cutoff Time | 0 = No Cutoff,<br>1 to 255 minutes | Determines the time in minutes for Bell Output and Auxiliary Alarm signaling device. |
| Universal Output Time | 0 = Toggle ON,<br>1 to 255 seconds | Controls the timer for output programmed as Universal. Activated from Universal or Universal Logged zones. (See Section 3.3, Programming Note 16.) |

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| | | |
|---|---|---|
| Delay Before Dial | 0 to 255 seconds | Time in seconds that a user has after a Burglar, Holdup or Auxiliary Alarm from a zone has occurred to silence the alarm with a disarm and abort the alarm event. (See Section 3.3, Programming Note 12.) |
| Fire Delay Before Dial | 0 to 255 seconds | Time in seconds that a user has after a Fire Alarm from a zone has occurred to silence the alarm and abort the alarm event. (See Section 3.3, Programming Note 13.) |
| AC Trouble Delay | 0 to 255 minutes | Time in minutes that AC power must be down until the condition is reported to the Central Station. If time set is an odd number, it will be silent, if time set is an even number, it will be audible at the keypad. |
| Senior Watch Time | 0 - 42 hours | Time in hours during which there is no activity before a Senior Watch event is logged to be reported. (See Section 3.3, Programming Note 10.) |
| System Attributes | 00 to FF<br><br>(see the System Attribute Table.) | Fire Bell (Steady/Temporal) - determines the operation of the Bell Output during a Fire alarm.<br>Burglar Bell (Steady/Pulsed) - determines the operation of the Bell Output during a Burglar alarm.<br>Holdup Bell (Steady/Pulsed) - determines the operation of the Bell Output during a Holdup alarm.<br>Auxiliary Bell (Steady/Pulsed) - determines the operation of the Bell Output during an Auxiliary alarm.<br>Log Alarm Abort Events - if enabled, Abort Alarm events are posted in the Event Log. (See Section 3.3, Programming Notes 12 & 13.)<br>Log Access Events - if enabled, the "Keypad Access Activated" events will be posted in the Event Log. These events are not reportable to the Central Station.<br>Print Access Only R/T - if enabled with a printer connected, then only Keypad Access Activated" events will be printed. This does not affect the Event Log print command.<br>Bell Test on Arm - if enabled, then the Bell Output(s) for an area will be activated for two seconds when that area is armed in the AWAY mode. |
| Passcode Entry Lockout | 0 = No Lock,<br>1 to 15 attempts | Sets the number of failed passcode entry attempts allowed before a 50 second lockout for a particular Control Station. |
| AC Cycles | 0 = 60 Hz<br>1 = 50 Hz | Synchronizes the internal clock with the local power company's 50 or 60 Hz for accurate time keeping. |

**NOTE**

**Alarm Bell operations only affect the Bell Output. They do not affect the associated Alarm Indicator outputs.**

## System Attribute Table

| Enter For: | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **First Digit** | | | | | | | | | | | | | | | | |
| All Features Below Disabled | * | | | | | | | | | | | | | | | |
| Log Alarm Abort Events | | * | | * | | * | | * | | * | | * | | * | | * |
| Log Access Events | | | * | * | | | * | * | | | * | * | | | * | * |
| Print Access Only R/T | | | | | * | * | * | * | | | | | * | * | * | * |
| Bell Test on Arm | | | | | | | | | * | * | * | * | * | * | * | * |
| **Second Digit** | | | | | | | | | | | | | | | | |
| Burglar Bell Steady | * | * | | | * | * | | | * | * | | | * | * | | |
| Burglar Bell Pulsed | | | * | * | | | * | * | | | * | * | | | * | * |
| Holdup Bell Steady | * | * | * | * | | | | | * | * | * | * | | | | |
| Holdup Bell Pulsed | | | | | * | * | * | * | | | | | * | * | * | * |
| Aux Bell Steady | * | * | * | * | * | * | * | * | | | | | | | | |
| Aux Bell Pulsed | | | | | | | | | * | * | * | * | * | * | * | * |
| Fire Bell Steady | * | | * | | * | | * | | * | | * | | * | | * | |
| Fire Bell Temporal | | * | | * | | * | | * | | * | | * | | * | | * |

**NOTE**: If the First Digit entered is '1', it must be entered as '01'. A = 10; B = 11; C = 12; D = 13; E = 14; F = 15

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## 3.2.7 Communicator Data Description

### Communicator Data Default Table

| | Loc | Default | | Loc | Default |
|---|---|---|---|---|---|
| Enable Communicator | [322] | 1 | T1 Trans Format | [330] | 3 |
| Enable Skip Test | [323] | 0 | T2 Trans Format | [331] | 3 |
| Power-up Comm Test | [324] | 0 | Dialer Type | [332] | 1 |
| Disable Call Waiting | [325] | 0 | T1 Dial Attempts | [333] | 5 |
| Comm Test Time of Day (hr:min) | [326: 327] | 00:00 | T2 Dial Attempts | [334] | 5 |
| Days Between Comm Tests | [328] | 0 | On-Hook Time (sec) | [335] | 5 |
| Time Between Calls (sec) | [329] | 5 | Off-Hook Time (sec) | [336] | 3 |

The following table refers to programming locations 322 through 336:

| Item | Valid Range | Description |
|---|---|---|
| Enable Communicator | 0 = No<br>1 = Yes | Used to enable the control digital communicator for event reporting. Must be set to 0 if phone line is disconnected. If line is disconnected and a trouble condition occurs, the control station will display 'Failed to Communicate' and/or 'Phone Line Fault' trouble until it is disabled. |
| Enable Skip Test | 0 = No<br>1 = Yes | Allows the auto comm test to be skipped if any signal has been transmitted to the Central Station since the last auto comm test. |
| Power-up Comm Test | 0 = No<br>1 = Yes | Causes a communicator test to be initiated immediately upon system power up. Does not affect days between tests counter. |
| Disable Call Waiting | 0 = No<br>1 = Yes | If enabled, the system will automatically dial "*70D" (or "1170D" if pulse dialing) prior to dialing a telephone number. This will temporarily disable the Call Waiting beeps during a phone call. |
| Comm Test Time of Day | 00:00 to 23:59 HH:MM | Sets the hour and minute in military format for the auto communicator test. |
| Days Between Comm Tests | 0 = Disable, 1 to 255 days | Sets the time intervals in days for the auto communicator test. A setting of 0 disables Automatic Comm Test Reporting. Days until next comm test may be manually adjusted by control station. See Section 3.1.7. |
| Time Between Calls | 0 to 255 seconds | Time in seconds between a failed dial attempt to a Central Station and the next dial attempt. |
| T1 Trans Format | 0 = Pulsed 20 Baud - Non-Extended<br>1 = Pulsed 20 Baud - Extended<br>2 = Pulsed 40 Baud - Extended<br>3 = Contact ID<br>4 = Non-Telco Contact ID | Transmission format to be used when the communicator dials telephone #1. See Section 3.3, Programming Note 14. |
| T2 Trans Format | 0 = Pulsed 20 Baud - Non-Extended<br>1 = Pulsed 20 Baud - Extended<br>2 = Pulsed 40 Baud - Extended<br>3 = Contact ID<br>4 = Pager | Transmission format to be used when the communicator dials telephone #2. See Section 3.3, Programming Note 14. |
| Dialer Type | 0 = US Pulsed<br><br>1 = Touchtone®<br><br>2 = Foreign Pulse | Sets the type of dialing.<br>"US Rotary" uses North American Standard (60/40) make/ break ratio pulses.<br>TT (Touchtone®) uses industry standard DTMF tones. Touchtone® is a trademark of AT&T.<br>"Foreign Rotary" uses 67/33 make/break ratio pulses, typical of foreign countries. |

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| | | |
|---|---|---|
| T1 Dial Attempts | 1 to 15 attempts | Maximum number of dial attempts when the communicator dials telephone #1. |
| T2 Dial Attempts | 1 to 15 attempts | Maximum number of dial attempts when the communicator dials telephone #2. |
| On-Hook Time & Off-Hook Time | 1 to 15 seconds | Before the communicator dials a phone number, it seizes the phone line and goes off-hook for two seconds. It will then go back on-hook for the **On-Hook Time** to disconnect an existing phone connection. The communicator will then go back off-hook for the **Off-Hook Time** to acquire dial tone before dialing. |

### Receiver Compatibility Table

| Receivers | Transmission Format | Transmission Speeds (Pulse Reporting Only) |
|---|---|---|
| Ademco 685 | 3/1, 4/2, Contact ID | 20B |
| FBI CP220 | 3/1, 4/2, Contact ID | 20B - 40B |
| Osborne-Hoffman (Quick Alert) | 3/1, 4/2, Contact ID | 20B - 40B |
| Radionics 6000 | 3/1 | 20B - 40B |
| Radionics 6500 | 3/1, 4/2 | 20B - 40B |
| Silent Knight 9000 | 3/1, 4/2 | 20B - 40B |
| MLR-2DG | 3/1, 4/2, Contact ID | 20B - 40B |

All receivers listed functioned with the listed formats at time of testing. Modifications or programming changes may affect receiver operation. Consult manufacturer of specific receiver for setup and operation.

## 3.2.8 Communication Telephone Numbers Description

Event reporting assignments for each telephone number are programmed under the Area Event Reporting section. (See Section 3.2.9.) The assignment of telephone dialing options and reporting formats are programmed under the Communicator Options section. (See Section 3.2.7.)

### Communication Telephone Number Default Table

| | Location | Default |
|---|---|---|
| Telephone 1 (16 digits) | [337 - 352] | all F's |
| Telephone 2 (24 digits) | [353 - 376] | all F's |
| RPM/2 Pro Phone (16 digits) | [377 - 392] | all F's |

The following table refers to programming locations 337 through 392:

| Item | Description |
|---|---|
| T1 Telephone Number | 16 hex digits |
| T2 Telephone Number | 24 hex digits |
| RPM/2 Pro Telephone Number | 16 hex digits (Available for future use.) |

T2 telephone number has extra digits to allow for pager reporting. All six digits of the account code and both digits of the report code will be added on to the end of Telephone number 2. The digits in the telephone number will consist of the pager's phone number, a significant delay, and possibly the beginning of the pager message. The telephone number will be dialed for the number of dial attempts programmed and the pager message will be blindly sent each time. There will be no feedback and, therefore, no failed to communicate.

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**NOTE**

**The paging network setup for your area determines if your pager will work with the T2 telephone number.**

### Dialed Digits Allowed

See Section 3.1.3.2 for information on programming account codes and telephone number digits.

| | |
|---|---|
| 0 - 9 | Numbers from 0 to 9 dial the appropriate Touchtone® or pulse digit. |
| A | To be determined. |
| B | Programming a B into any digit position causes the communicator to produce a Touchtone® * tone. Useful for unique applications such as voice mail, cellular, or paging applications. |
| C | Programming a C into any digit position causes the communicator to produce a Touchtone® # tone. |
| D | Programming a D into any digit position causes a three second pause during dialing. |
| E | To be determined. |
| F | An F may be programmed after the last digit of a telephone number to signify end of dialing. An 'F' entered as the first digit of a phone number disables that phone number. |

## 3.2.9 Area Event Reporting Description

### Area Event Reporting Default Table

| | Area 1 | | Area 2 | |
|---|---|---|---|---|
| | **Location** | **Default** | **Location** | **Default** |
| Tel 1 Account No (6 Hex Digits) | [393 - 398] | 000000 | [405 - 410] | 000000 |
| Tel 2 Account No (6 Hex digits) | [399 - 404] | 000000 | [411 - 416] | 000000 |
| Fire Phone No. * | [417] | 3 | | |
| System Events Phone No. ** | [418] | 0 | | |
| Burglar Phone No. | [419] | 3 | [427] | 3 |
| Hold-up Phone No. | [420] | 3 | [428] | 3 |
| Auxiliary Phone No. | [421] | 3 | [429] | 3 |
| CCM Phone No. | [422] | 3 | [430] | 3 |
| Zone Trouble/Restore Phone No. | [423] | 0 | [431] | 0 |
| Zone Bypass/Restore Phone No. | [424] | 0 | [432] | 0 |
| Open/Close Phone No. | [425] | 0 | [433] | 0 |
| Supervision Phone No. | [426] | 0 | [434] | 0 |

* Note: Fire Events communicate as Area 1 only.
** Note: System Events communicate as Area 1 only.

The following table refers to programming locations 393 through 434:

| Item | Valid Range | Description |
|---|---|---|
| Telephone 1 Account No. | 6 Hex Digits | Account number used when dialing telephone #1. See Section 3.3, Programming Note 14. |
| Telephone 2 Account No. | 6 Hex Digits | Account number used when dialing telephone #2. See Section 3.3, Programming Note 14. |

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| | | |
|---|---|---|
| Fire Phone No.<br><br>Note: These events are reported using Area 1 account codes only. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Fire Alarms, Fire Supervisories, and Restorals. |
| Systems Events Phone No.<br><br>**Note: These events are reported using Area 1 account codes only.** | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which phone #'s report system events. Includes Keypad Lockout, Keypad Missing & Restoral, Auto Comm Test, AC Failure & Restoral, Panel Low Battery & Restoral, Bell Fault & Restoral, Comm Restoral, Memory Error, Begin & End Installer Local Programming, End Remote Programming, Remote Programming Denied & Aborted, RF Jamming, RF Channel Clear, and RF Keyfob low battery. |
| Burglar Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Burglar Alarms, Burglar Tamper, Exit Alarm, Recent Closing, Burglar Alarm Canceled, and Restorals. |
| Hold-up Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Holdup Alarms, Duress, and Restorals. |
| Auxiliary Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Auxiliary Alarms and Restorals. |
| Critical Condition Monitor (CCM) Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Critical Condition Monitoring events and Restorals. |
| Zone Trouble/Restore Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Zone Troubles and Restorals. |
| Zone Bypass/Restore Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Zone Bypasses and Restorals. |
| Open/Close Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Openings, Closings, Auto Arm Fail, Auto Arm Aborted, and Closing Extended. |
| Supervision Phone No. | 0 = Do Not Report<br>1 = Phone 1 Only<br>2 = Phone 2 Only<br>3 = Phone 1 (2 on Failure)<br>4 = Phone 2 (1 on Failure)<br>5 = Phone 1 and 2 | Directs which telephone number(s) to report Latchkey Supervision, User on Premises, Senior Watch, and Senior Watch Restore. |

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### 3.2.10 Zone Report Codes Description

The Zone Report Codes utilize programming locations 435 through 554. Each Zone has an alarm, restore, bypass and trouble code. The restore may be an alarm, trouble, or bypass restoral. A Zone Trouble may result from one of the following conditions:

Wiring problem
Senior Watch Trouble
No Response from Zone Expander
Fire Trouble (Fire zone bypassed or Fire zone in Walk Test)
Smoke Trouble
RF Point Not Reporting
RF Sensor Tamper
RF Point Low Battery

These events will be posted and displayed differently in the Event Log. If one of these events is reported using a Pulsed format, then the standard Zone Trouble report code will be used. If one of these events is reported using Contact ID then a more descriptive report code will be used.

Each report code requires a two digit entry. The first digit sets the primary event code and the second digit sets the extended code. (See Section 3.1.3.3 for Programming Report Codes). If a transmission format other than a Pulsed format is used, it is only necessary to program a value other than zero into either digit to enable that event to be reported, the correct transmitted data is automatically sent.

**Zone Report Codes Default Table**

| | Alarm | | Restore | | Bypass | | Trouble | |
|---|---|---|---|---|---|---|---|---|
| | **Loc** | **Default** | **Loc** | **Default** | **Loc** | **Default** | **Loc** | **Default** |
| Zone 01 | [435] | H-31 | [436] | H-E3 | [437] | H-AB | [438] | H-F3 |
| Zone 02 | [439] | H-32 | [440] | H-E3 | [441] | H-AB | [442] | H-F3 |
| Zone 03 | [443] | H-33 | [444] | H-E3 | [445] | H-AB | [446] | H-F3 |
| Zone 04 | [447] | H-34 | [448] | H-E3 | [449] | H-AB | [450] | H-F3 |
| Zone 05 | [451] | H-35 | [452] | H-E3 | [453] | H-AB | [454] | H-F3 |
| Zone 06 | [455] | H-36 | [456] | H-E3 | [457] | H-AB | [458] | H-F3 |
| Zone 07 | [459] | H-37 | [460] | H-E3 | [461] | H-AB | [462] | H-F3 |
| Zone 08 | [463] | H-38 | [464] | H-E3 | [465] | H-AB | [466] | H-F3 |
| Zone 09 | [467] | H-39 | [468] | H-E3 | [469] | H-AB | [470] | H-F3 |
| Zone 10 | [471] | H-3A | [472] | H-E3 | [473] | H-AB | [474] | H-F3 |
| Zone 11 | [475] | H-3B | [476] | H-E3 | [477] | H-AB | [478] | H-F3 |
| Zone 12 | [479] | H-3C | [480] | H-E3 | [481] | H-AB | [482] | H-F3 |
| Zone 13 | [483] | H-3D | [484] | H-E3 | [485] | H-AB | [486] | H-F3 |
| Zone 14 | [487] | H-3E | [488] | H-E3 | [489] | H-AB | [490] | H-F3 |
| Zone 15 | [491] | H-3F | [492] | H-E3 | [493] | H-AB | [494] | H-F3 |
| Zone 16 | [495] | H-61 | [496] | H-E6 | [497] | H-AB | [498] | H-F6 |
| Zone 17 | [499] | H-62 | [500] | H-E6 | [501] | H-AB | [502] | H-F6 |
| Zone 18 | [503] | H-63 | [504] | H-E6 | [505] | H-AB | [506] | H-F6 |
| Zone 19 | [507] | H-64 | [508] | H-E6 | [509] | H-AB | [510] | H-F6 |
| Zone 20 | [511] | H-65 | [512] | H-E6 | [513] | H-AB | [514] | H-F6 |
| Zone 21 | [515] | H-66 | [516] | H-E6 | [517] | H-AB | [518] | H-F6 |
| Zone 22 | [519] | H-67 | [520] | H-E6 | [521] | H-AB | [522] | H-F6 |
| Zone 23 | [523] | H-68 | [524] | H-E6 | [525] | H-AB | [526] | H-F6 |
| Zone 24 | [527] | H-69 | [528] | H-E6 | [529] | H-AB | [530] | H-F6 |
| Zone 25 | [531] | H-6A | [532] | H-E6 | [533] | H-AB | [534] | H-F6 |
| Zone 26 | [535] | H-6B | [536] | H-E6 | [537] | H-AB | [538] | H-F6 |
| Zone 27 | [539] | H-6C | [540] | H-E6 | [541] | H-AB | [542] | H-F6 |
| Zone 28 | [543] | H-6D | [544] | H-E6 | [545] | H-AB | [546] | H-F6 |
| Zone 29 | [547] | H-11 | [548] | H-E1 | [549] | H-AB | [550] | H-F1 |
| Zone 30 | [551] | H-12 | [552] | H-E1 | [553] | H-AB | [554] | H-F1 |

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### 3.2.11 User Report Codes Description

The User Report Codes utilize programming locations 555 through 654. This data block is used to program the opening and closing reports for each user code.

Each report code requires a two digit entry. The first digit sets the primary event code and the second digit sets the extended code. (See Section 3.1.3.3 for Programming Report Codes). If a transmission format other than a Pulsed format is used, it is only necessary to program a value other than zero into either digit to enable that event to be reported, the correct transmitted data is automatically sent.

The open and close report code is assigned to the user, not the area. Some users may be assigned to arm and disarm multiple areas. Any user with the authority to arm and disarm multiple areas has the same opening and closing report codes. However, the Central Station can differentiate between areas by the account code transmitted.

**User Report Code Default Table**

| | Close | | Open | |
|---|---|---|---|---|
| | Loc | Default | Loc | Default |
| User 01 | [555] | H-C1 | [556] | H-B1 |
| User 02 | [557] | H-C2 | [558] | H-B2 |
| User 03 | [559] | H-C3 | [560] | H-B3 |
| User 04 | [561] | H-C4 | [562] | H-B4 |
| User 05 | [563] | H-C5 | [564] | H-B5 |
| User 06 | [565] | H-C6 | [566] | H-B6 |
| User 07 | [567] | H-C7 | [568] | H-B7 |
| User 08 | [569] | H-C8 | [570] | H-B8 |
| User 09 | [571] | H-C9 | [572] | H-B9 |
| User 10 | [573] | H-CA | [574] | H-BA |
| User 11 | [575] | H-CB | [576] | H-BB |
| User 12 | [577] | H-CC | [578] | H-BC |
| User 13 | [579] | H-CD | [580] | H-BD |
| User 14 | [581] | H-CE | [582] | H-BE |
| User 15 | [583] | H-CF | [584] | H-BF |
| User 16 | [585] | H-CF | [586] | H-BF |
| User 17 | [587] | H-CF | [588] | H-BF |
| User 18 | [589] | H-CF | [590] | H-BF |
| User 19 | [591] | H-CF | [592] | H-BF |
| User 20 | [593] | H-CF | [594] | H-BF |
| User 21 | [595] | H-CF | [596] | H-BF |
| User 22 | [597] | H-CF | [598] | H-BF |
| User 23 | [599] | H-CF | [600] | H-BF |
| User 24 | [601] | H-CF | [602] | H-BF |
| User 25 | [603] | H-CF | [604] | H-BF |

| | Close | | Open | |
|---|---|---|---|---|
| | Loc | Default | Loc | Default |
| User 26 | [605] | H-CF | [606] | H-BF |
| User 27 | [607] | H-CF | [608] | H-BF |
| User 28 | [609] | H-CF | [610] | H-BF |
| User 29 | [611] | H-CF | [612] | H-BF |
| User 30 | [613] | H-CF | [614] | H-BF |
| User 31 | [615] | H-CF | [616] | H-BF |
| User 32 | [617] | H-CF | [618] | H-BF |
| User 33 | [619] | H-CF | [620] | H-BF |
| User 34 | [621] | H-CF | [622] | H-BF |
| User 35 | [623] | H-CF | [624] | H-BF |
| User 36 | [625] | H-CF | [626] | H-BF |
| User 37 | [627] | H-CF | [628] | H-BF |
| User 38 | [629] | H-CF | [630] | H-BF |
| User 39 | [631] | H-CF | [632] | H-BF |
| User 40 | [633] | H-CF | [634] | H-BF |
| User 41 | [635] | H-CF | [636] | H-BF |
| User 42 | [637] | H-CF | [638] | H-BF |
| User 43 | [639] | H-CF | [640] | H-BF |
| User 44 | [641] | H-CF | [642] | H-BF |
| User 45 | [643] | H-CF | [644] | H-BF |
| User 46 | [645] | H-CF | [646] | H-BF |
| User 47 | [647] | H-CF | [648] | H-BF |
| User 48 | [649] | H-CF | [650] | H-BF |
| User 49 | [651] | H-CF | [652] | H-BF |
| User 50 | [653] | H-CF | [654] | H-BF |

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### 3.2.12 System Report Codes Description

Each report code requires a two digit entry. The first digit sets the primary event code and the second digit sets the extended code. (See Section 3.1.3.3 for Programming Report Codes). If the transmission format is anything other than a Pulsed format, it is only necessary to program a value other than zero into either digit to enable that event to be reported, the correct transmitted data is automatically sent.

**System Event Report Codes Default Table**

| | Loc | Default | | Loc | Default |
|---|---|---|---|---|---|
| 'A' Key Report Code | [655] | H-19 | Comm Test Report Code | [674] | H-00 |
| 'B' Key Report Code | [656] | H-29 | AC Fail Report Code | [675] | H-FA |
| 'C' Key Report Code | [657] | H-49 | AC Restore Report Code | [676] | H-EA |
| Duress Code | [658] | H-99 | Low Battery Report Code | [677] | H-F9 |
| Keypad Lockout Code | [659] | H-00 | Battery Restore Code | [678] | H-E9 |
| Burg Cancel Report Code | [660] | H-00 | Bell Fault Report Code | [679] | H-00 |
| Quick Arm Report Code | [661] | H-00 | Bell Restore Report | [680] | H-00 |
| Auto-Arm Code | [662] | H-00 | Comm Restore Report Code | [681] | H-00 |
| Auto-Arm Failed Code | [663] | H-00 | Memory Error Report Code | [682] | H-00 |
| Keyswitch Closing Code | [664] | H-00 | Local Program Begin Code | [683] | H-00 |
| Keyswitch Opening Code | [665] | H-00 | Local Program End Code | [684] | H-00 |
| Installer/RPM Closing Code | [666] | H-00 | RPM End Report Code | [685] | H-00 |
| Installer/RPM Opening Code | [667] | H-00 | RPM Denied Report Code | [686] | H-00 |
| Closing Extended Code | [668] | H-00 | RPM Abort Report Code | [687] | H-00 |
| Exit Alarm Code | [669] | H-00 | Missing Keypad Code | [688] | H-00 |
| Recent Closing Code | [670] | H-00 | Restore Keypad Code | [689] | H-00 |
| Latch Key Supervision Code | [671] | H-00 | RF Jamming Code | [690] | H-00 |
| User on Premises Code | [672] | H-00 | RF Channel Clear Code | [691] | H-00 |
| Comm Test Not Norm Code | [673] | H-00 | RF Keyfob Low Battery Code | [692] | H-00 |

The following table refers to programming locations 655 through 692:

| Item | Valid Range | Description |
|---|---|---|
| 'A' Key Report Code | 00 to FF | Code sent for alarms activated by pressing the Fire panic key. |
| 'B' Key Report Code | 00 to FF | Code sent for alarms activated by pressing the Police panic key. |
| 'C' Key Report Code | 00 to FF | Code sent for alarms activated by pressing the Medical panic key. |
| Duress Code | 00 to FF | Code sent for a duress (Authority Level 13) code arm or disarm. |
| Keypad Lockout Code | 00 to FF | Code sent when a control station is locked out due to failed passcode attempts. |
| Burg Cancel Report Code | 00 to FF | Code sent when an authorized user resets a burglar alarm after reporting and before the Burglar Bell Cutoff timer expires. |
| Quick Arm Report Code | 00 to FF | Code sent when an area is armed using Two-Button or Double Press Arming. |
| Auto-Arming Code | 00 to FF | Code sent when armed by scheduled program or Exit Arm. |
| Auto-Arm Failed Code | 00 to FF | Code sent when a scheduled arming is aborted or could not be completed. |
| Keyswitch Closing Code | 00 to FF | Code sent when an area is armed by keyswitch zone |
| Keyswitch Opening Code | 00 to FF | Code sent when an area is disarmed by keyswitch zone. |
| Installer/RPM Closing Code | 00 to FF | Code sent when an area is armed by RPM or the installer at a Control Station. |
| Installer/RPM Opening Code | 00 to FF | Code sent when an area is disarmed by RPM or the installer at a Control Station. |
| Closing Extended Code | 00 to FF | Code sent when the scheduled closing time is extended. |
| Exit Alarm Code | 00 to FF | Code sent in addition to a burglar alarm event if the alarm occurs when the exit time expires. |

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| | | |
|---|---|---|
| Recent Closing Code | 00 to FF | Code sent in addition to a burglar alarm event if the alarm occurs within two minutes after exit time expires. |
| Latchkey Supervision Code | 00 to FF | Code sent when the latchkey code is not entered during the programmed time window. |
| User on Premises Code | 00 to FF | Code sent when the User on Premises (Authority Level 12) passcode is entered to disarm the system or perform the access operation. |
| Comm Test Not Norm Code | 00 to FF | Code sent at the comm test time-of-day in place of the comm test report when a trouble condition is present. If this report code is set to 00, a normal comm test event is transmitted. |
| Comm Test Report Code | 00 to FF | Code sent at the comm test time-of-day when no trouble conditions are present. Transmitted at power-up, if Test On Power-Up is enabled (see Section 3.2.7). Implies proper operation of the communicator and the telephone line. |
| AC Fail Report Code | 00 to FF | Code sent when the control has lost the primary AC input. The delay time before this report is transmitted is located in Section 3.2.6. |
| AC Restore Report Code | 00 to FF | Code sent when the AC primary power has been restored. |
| Low Battery Report Code | 00 to FF | Code sent when the control detects a low battery voltage reading of 11.3 VDC or less. |
| Battery Restore Code | 00 to FF | Code sent when the low battery condition has been restored. |
| Bell Fault Report Code | 00 to FF | Code sent when the control panel detects a Bell Fault. |
| Bell Restore Report Code | 00 to FF | Code sent when the Bell Fault trouble is restored. |
| Comm Restore Report Code | 00 to FF | When the control is unsuccessful in reporting an event, the fail to communicate (local trouble) displays. If a subsequent report of any type is successful, the control also reports this code. |
| Memory Error Report Code | 00 to FF | Code sent when the internal memory check finds an unauthorized change in the value of one or more of the programming options. |
| Local Prog Begin Code | 00 to FF | Code sent when a program function map is initiated at the control site. |
| Local Prog End Code | 00 to FF | Code sent after programming mode is terminated at the installation site. This occurs 255 seconds after exiting programming mode or by holding the CLEAR key for three seconds. |
| RPM End Report Code | 00 to FF | Code sent when an RPM session has been completed normally. |
| RPM Denied Report Code | 00 to FF | Code sent when an unauthorized RPM session is attempted (i.e.: improper ID code or access device). |
| RPM Abort Report Code | 00 to FF | Code sent when an RPM session is aborted. If an alarm event requiring a report to the Central Station occurs during an RPM session, the control may abort the session to report the event. |
| Missing Keypad Code | 00 to FF | Code sent when a supervised Control Station is removed or fails to respond to system polling. |
| Restore Keypad Code | 00 to FF | Code sent when a missing Control Station is restored to the data bus. |
| RF Jamming Report Code | 00 to FF | Reserved for future use. |
| RF Channel Clear Code | 00 to FF | Reserved for future use. |
| RF Keyfob Low Battery Code | 00 to FF | Reserved for future use. |

### 3.2.13 Area Schedules Description

#### Automatic Arming

If automatic arming is enabled, the control produces a warning signal at the appropriate Control Station(s) once every minute beginning ten minutes prior to the event. During this warning, the same control station(s) may display a visual indication of the impending action and the amount of time remaining. This allows the user ample warning to exit or override the impending action. Auto Arming time may be extended by one hour during each ten minute warning period (but not past midnight) using the Delay Auto Arming function. The user can also abort the scheduled arming for that day through User Level programming. (See the appropriate User Guide). Auto Arming arms the control in the AWAY, STAY, or NIGHT mode with normal exit time.

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## Latch Key Schedules

A Latch Key User ID is used to determine which user passcode must be entered on selected Latch Key Days. The user passcode must be entered within a time window. If the user passcode is not entered during the Time Window, a Latch key Supervision event will be posted in the Event Log to be reported.

For example, if Monday is a Latch Key Day and the Latch Key Time for Monday is 14:30 with a thirty minute Time Window and the Latch Key User ID is not entered between 14:00 and 15:00 hours, then a Latch Key Supervision event will be posted at 15:00 hours.

**NOTE**

**The Latchkey Time Window cannot cross over the Midnight boundary. During the Time Window, the Control Station will chime once a minute until the user passcode is entered or the Time Window has expired, whichever comes first.**

## Area Schedules Default Table

| | Area 1 | | Area 2 | |
|---|---|---|---|---|
| | **Location** | **Default** | **Location** | **Default** |
| Scheduled Arm Mode | [693] | 0 | [726] | 0 |
| Scheduled Arm Days | [694] | H-00 | [727] | H-00 |
| Arm Time Sun (hr:min) | [695:696] | 00:00 | [728:729] | 00:00 |
| Arm Time Mon (hr:min) | [697:698] | 00:00 | [730:731] | 00:00 |
| Arm Time Tues (hr:min) | [699:700] | 00:00 | [732:733] | 00:00 |
| Arm Time Wed (hr:min) | [701:702] | 00:00 | [734:735] | 00:00 |
| Arm Time Thurs (hr:min) | [703:704] | 00:00 | [736:737] | 00:00 |
| Arm Time Fri (hr:min) | [705:706] | 00:00 | [738:739] | 00:00 |
| Arm Time Sat (hr:min) | [707:708] | 00:00 | [740:741] | 00:00 |
| Latch Key User ID | [709] | 0 | [742] | 0 |
| Latch Key Days | [710] | H-00 | [743] | H-00 |
| Latch Key Window (min) | [711] | 0 | [744] | 0 |
| Latch Time Sun (hr:min) | [712:713] | 00:00 | [745:746] | 00:00 |
| Latch Time Mon (hr:min) | [714:715] | 00:00 | [747:748] | 00:00 |
| Latch Time Tues (hr:min) | [716:717] | 00:00 | [749:750] | 00:00 |
| Latch Time Wed (hr:min) | [718:719] | 00:00 | [751:752] | 00:00 |
| Latch Time Thurs (hr:min) | [720:721] | 00:00 | [753:754] | 00:00 |
| Latch Time Fri (hr:min) | [722:723] | 00:00 | [755:756] | 00:00 |
| Latch Time Sat (hr:min) | [724:725] | 00:00 | [757:758] | 00:00 |

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The following table refers to programming locations 693 through 758:

| Item | Valid Range | Description |
|---|---|---|
| Scheduled Arming Mode | 0 = AWAY 1 = STAY 2 = NIGHT | Determines the Auto Arm mode. |
| Scheduled Arming Days | 00 to FF (see the table below for acomplete description of each value's activation) | Selects the days of the week the system automatically arms. |
| Sunday Arming Time | 00:00 to 23:59 | The time for Auto Arming on Sunday. |
| Monday Arming Time | 00:00 to 23:59 | The time for Auto Arming on Monday. |
| Tuesday Arming Time | 00:00 to 23:59 | The time for Auto Arming on Tuesday. |
| Wednesday Arming Time | 00:00 to 23:59 | The time for Auto Arming on Wednesday. |
| Thursday Arming Time | 00:00 to 23:59 | The time for Auto Arming on Thursday. |
| Friday Arming Time | 00:00 to 23:59 | The time for Auto Arming on Friday. |
| Saturday Arming Time | 00:00 to 23:59 | The time for Auto Arming on Saturday. |
| Latch Key User ID | 0 = disable, User 1 to 50 | Determines the user passcode that has Latch Key Supervision. |
| Latch Key Days | 00 to FF (see Scheduled Arming and Latch Key Days Table.) | Selects the days of the week that Latch Key Supervision is performed. |
| Latch Key Time Window | 0 to 255 minutes | Time in minutes (+/-) the Latch Key User Code may be entered. |
| Sunday Latch Key Time | 00:00 to 23:59 | The time, (+/-) the Time Window, the Latch Key user passcode must be entered on Sunday. |
| Monday Latch Key Time | 00:00 to 23:59 | The time, (+/-) the Time Window, the Latch Key user passcode must be entered on Monday. |
| Tuesday Latch Key Time | 00:00 to 23:59 | The time, (+/-) the Time Window, the Latch Key user passcode must be entered on Tuesday. |
| Wednesday Latch Key Time<br><br>Time | 00:00 to 23:59<br><br>00:00 to 23:59 | The time, (+/-) the Time Window, the Latch Key user passcode must be entered on Wednesday.Thursday Latch Key<br>The time, (+/-) the Time Window, the Latch Key user passcode must be entered on Thursday. |
| Friday Latch Key Time | 00:00 to 23:59 | The time, (+/-) the Time Window, the Latch Key user passcode must be entered on Friday. |
| Saturday Latch Key Time | 00:00 to 23:59 | The time, (+/-) the Time Window, the Latch Key user passcode must be entered on Saturday. |

### Scheduled Arming and Latch Key Days Table

| Enter For: | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **First Digit** | | | | | | | | | | | | | | | | |
| All Days Below Disabled | * | | | | | | | | * | | | | | | | |
| Thursday | | * | | * | | * | | * | | * | | * | | * | | * |
| Friday | | | * | * | | | * | * | | | * | * | | | * | * |
| Saturday | | | | | * | * | * | * | | | | | * | * | * | * |
| **Second Digit** | | | | | | | | | | | | | | | | |
| All Days Below Disabled | * | | | | | | | | | | | | | | | |
| Sunday | | * | | * | | * | | * | | * | | * | | * | | * |
| Monday | | | * | * | | | * | * | | | * | * | | | * | * |
| Tuesday | | | | | * | * | * | * | | | | | * | * | * | * |
| Wednesday | | | | | | | | | * | * | * | * | * | * | * | * |

**NOTE**: If the First Digit entered is '1', it must be entered as '01'. A = 10; B = 11; C = 12; D = 13; E = 14; F = 15

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### 3.2.14 Programming Options

This section deals with the attributes of the Remote Programming Manager Software. Before programming the specific functions, it is important to understand the following:

ABORT: During a remote programming session, the control is fully functional and can detect and annunciate alarms locally. The control aborts a session with RPM/2 Pro to report alarm events.

DATALOCK: As a provision of anti-takeover, the control does not permit local programming of the account numbers and telephone numbers, or the Restore Factory Defaults option to operate when an agency code has been established and programmed by the RPM/2 Pro software. Other installer programming changes are still allowed. When the Datalock (agency code) is set, the Control Station emits an error tone if any attempt is made to change an account number or a phone number or to default the control.

#### Programming Options Default Table

| | Location | Default |
|---|---|---|
| Installer Passcode | [759 - 762] | 9632 |
| Call 2 Timer (sec) | [763] | 0 |
| Auto Answer Ring Count | [764] | 5 |
| Enable RPM | [765] | 1 |
| Enable Power Up Program | [766] | 0 |
| Lockout Local Program | [767] | 0 |

The following table refers to programming locations 759 through 767:

| Item | Valid Range | Description |
|---|---|---|
| Installer Passcode | 0000 to 9999 | The installer passcode is the only passcode that may program the entire Function Map. See Section 3.2.4 for a description of the other functions that may be performed. |
| 2nd Call Timer | 0 - 255 seconds | Time in seconds for the answering machine bypass time window. This allows the remote programmer to bypass an answering machine by making two calls to the premises. The first call must ring three times or less and not be answered. The answering machine bypass time window starts ten seconds after the last ring of the first call. If the first ring of the second call occurs within the answering machine bypass time window, the panel answers the second call on the first ring. Remote Programming must be enabled and Auto-Answer Ring count must be non-zero. |
| Auto Answer Ring Count | 0 - 15 rings | Sets the number of rings that must occur before the panel automatically answers the telephone for operation with RPM/2 Pro. A ring count of 0 disables automatic answering, but manual connection may still be used. If Remote Programming is **not** enabled, then the auto-answer ring count is ignored and the panel never answers. |
| Enable RPM | 0 = No<br>1 = Yes | Enables operation of the control with the RPM/2 Pro package. |
| Enable Power Up Program | 0 = No<br>1 = Yes | A quick way to enter program mode upon power up. Pressing the 9 key and entering “9999” within the first 60 seconds after power up enters the control into Installer Level Programming mode. Consider disabling this feature for anti-takeover. |
| Lockout Local Program | 0 = No<br>1 = Yes | This is provided for anti-takeover protection. If it is enabled, the installer passcode is limited as noted in Section 3.2.4. A user may still be able to perform user level programming and RPM/2 Pro will be fully operational. Do not enable this unless an RPM/2 Pro account has been established for the control. |

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## 3.3 Programming Notes

### Note 1: Restarting Exit Time

If an exit time is counting down from an AWAY arming, the exit time may be automatically restarted once to reduce false alarms.

The exit time will be restarted if a Perimeter (arm in STAY mode and arm in NIGHT mode) Burglar zone is violated anytime during the last ten seconds of exit time.

If the exit time is not due to an Exit Arm or a Scheduled Arming, then the exit time will be restarted if it expires and a Perimeter (Arm in STAY mode and Arm in NIGHT mode) Burglar zone has not been violated during the exit time (i.e.: nobody went out the door).

### Note 2: Entry Time versus Pre-Alarm Warning Time

Assuming Exit, Entry and Pre-Alarm Warning Times are inactive, a violation of an armed Burglar zone will cause the following actions depending on the area's arm level and the type of Burglar zone:

| | AWAY | STAY | STAY INSTANT | NIGHT | NIGHT INSTANT |
|---|---|---|---|---|---|
| Instant Burglar | Instant Alarm | Pre-Alarm Warning Time | Pre-Alarm Warning Time | Pre-Alarm Warning Time | Pre-Alarm Warning Time |
| Delay Burglar | Entry Time | Entry Time | Instant Alarm | Entry Time | Instant Alarm |
| Follower Burglar | Pre-Alarm Warning Time | Pre-Alarm Warning Time | Pre-Alarm Warning Time | Pre-Alarm Warning Time | Pre-Alarm Warning Time |

### Note 3: Exit Arm

An Exit Arm is intended to automatically arm an area ten minutes after the premises are vacated. An Exit Arm will only be attempted when it is enabled for an area and the area is disarmed and not in alarm. The end user can disable the Exit Arm feature on a day-to-day basis (see the appropriate User Guide). If a Disable Exit Arming is performed, the Exit Arm will be disabled until midnight.

When a Delay Burglar zone restores from a violation, the area's Exit Arm timer is started at ten minutes. During this time, the Control Station may display a visual indication of the impending action and the amount of time remaining. An audible warning signal will occur at two minutes until arming and at one minute until arming. When any Burglar zone is violated, the area's Exit Arm timer is halted. If a Delay zone restores from a violation while the timer is running, the timer is restarted at ten minutes. If an Instant or Follower Burglar zone restores from a violation, the timer is halted.

If the timer expires (i.e.: ten minutes of no Burglar zone activity following a Delay zone restoration), then the system attempts to arm the area in the AWAY mode. If Force-Arming is enabled, then a Force-Arm may occur if needed. If the arming is successful, then Exit time is started and an Auto-Arm event is logged to be reported. If the arming cannot be completed, then nothing will happen.

### Note 4: Force-Arming

If Force-Arming is enabled for an area, then an arming from a keyswitch zone, an Exit Arming or a Scheduled Arming will be Force-Armed if necessary.

### Note 5: LED Control Stations

The Secondary Area setting is ignored for LED Control Stations since they cannot provide area information and prompts. Therefore, LED Control Stations cannot have a Secondary Area.

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## Note 6: Verifying or Self-Verifying Burglar Zones

If an armed Verifying Burglar zone is violated, then a forty second Verification Timer is started. If the timer expires and the zone that started it is still in violation, then the zone's violation is verified. If another armed Burglar zone is violated while the timer is still running, then that violation verifies the first zone's violation.

If an armed Self-Verifying Burglar zone is violated, then a forty second Verification Timer is started. If the Timer expires and the zone is still in violation, then the zone's violation is verified. If another armed Burglar zone is violated while the Timer is still running, then that violation verifies the first zone's violation. If the same armed Burglar zone is violated a second time while the Timer is still running, then the zone's violation is verified.

If the area is armed such that a violation from the zone would normally cause an instant alarm:

- when the zone is first violated, nothing happens.
- when the violation is verified, an instant alarm occurs.
- If the Verification Timer expires without the violation being verified, then nothing happens.

If the area is armed such that a violation from the zone would normally cause an Entry Time or Pre-Alarm Warning Time Delay:

- when the zone is first violated, the Delay Timer is started.
- if the violation is verified while the Delay Timer is still running, then the Delay Timer continues as normal.
- if the Verification Timer expires while the Delay Timer is still running and the violation has not been verified, then the time continues. If the Delay Timer expires and no zones are violated from the Delay Time, then nothing happens.
- if the Delay timer expires before the Verification timer expires and the violation has not been verified, then nothing will happen until either the violation is verified or the Verification Timer expires.
- if the violation is verified after the Delay Timer has expired, then an instant alarm occurs.
- if the Verification Timer expires after the Delay Timer has expired without the violation being verified, then nothing happens.

## Note 7: Sentry Test Burglar Zones

If a Burglar zone has Sentry Test enabled, then each time the zone is disarmed, it must be tested before it can be armed again. A test consists of violating the zone from a restored state and then restoring it again.

If the zone has not been tested, then it appears as a faulted zone, making its area not ready to arm. An untested zone cannot be armed. If the zone is bypassable, then it may be bypassed to get around the testing. Force-Arming should not be enabled on systems with Sentry Test Burglar Zones.

## Note 8: Zone Activation of Bell Output and Keypad Sounders

The Bell Output on Alarm attribute determines whether the Bell Outputs for the zone's area activate due to an alarm from the zone. It does not affect the activation of any other programmable outputs, including an associated Alarm output. This attribute is only used if the Zone Type is Burglar, Holdup, Auxiliary and 24 Hour Burglar Tamper, otherwise, it is ignored. The Bell Outputs activate on all alarms from Fire and Verified Fire zones and from an 'A' key. They never activate from the other Zone Types.

The Keypad Sounder on Alarm attribute determines whether the Control Station sounders activate due to an alarm from the zone. It does not affect the activation of any programmable outputs. This attribute is only used if the Zone Type is Burglar, Holdup and Auxiliary, otherwise, it is ignored. Keypad sounders activate on all alarms from Fire and Verified Fire zones and from an 'A' key, as well as from 24-Hour Burglar Tamper and Fire Supervisory zones. They never activate from the other Zone Types.

If a Holdup zone is programmed with neither Bell Output on Alarm nor Keypad Sounder on Alarm, then an alarm from the zone will be invisible on the Control Stations.

## Note 9: Bypassable Zones - Fire Trouble Condition

All zones may be programmed as Bypassable. If a Fire, Verified Fire or Fire Supervisory zone is bypassable and is bypassed, a Fire Trouble condition occurs and is reported. The condition remains until the zone is unbypassed.

The Fire Trouble condition will also occur during a Walk Test.

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## Note 10: Senior Watch

The Senior Watch attribute may only be used with Burglar, Critical Condition Monitor, Universal, and Universal Logged zones. It is ignored for all other zone types.

If a Burglar zone has Senior Watch enabled, then the Senior Watch only applies when the zone is disarmed and not bypassed. Whenever the zone is violated, disarmed or unbypassed, the zone's Senior Watch timer is reset to the programmed time. If that timer expires and the zone is disarmed and not bypassed, then a Senior Watch Trouble event is posted for the zone to be reported. The trouble condition is not displayed on the keypad and it does not prevent the area from being armed. A Senior Watch Trouble Restore event is posted for the zone to be reported if the zone is then either violated, armed, or bypassed.

If a Critical Condition Monitor, Universal, or Universal Logged zone has Senior Watch enabled, then the Senior Watch only applies when the zone is not bypassed. When the zone is violated or unbypassed, the zone's Senior Watch timer is reset to the programmed time. If that timer expires and the zone is not bypassed, then a Senior Watch Trouble event is posted for the zone to be reported. The trouble condition is not displayed on the keypad. A Senior Watch Trouble restore event is posted for the zone to be reported if the zone is either violated or bypassed.

While a zone has a Senior Watch Trouble condition, its corresponding Senior Watch signaling device (programmable output) will stay ON steady.

## Note 11: The Listen-In Module

The Listen-In Module must be wired to the telephone lines in series with and behind the control panel. The Listen-In Module must be connected to the panel as follows. A Line-Seized indicator line must be connected from the ACTIVE output on the Listen-In Module to an assigned Listen-In Module zone on the panel. A Listen-In output line must be connected from an assigned output on the panel to the ACTIVATE input on the Listen-In Module.

The zone programmed as the Listen-In Module zone is area independent and is used by the panel to determine whether or not the Listen-In Module has seized the telephone line and has the microphone(s) active. The output programmed as the Listen-In Output may be assigned to any combination of areas. It is used by the panel to signal the Listen-In Module for activation.

The Listen-In Module may be configured in one of two modes, Instant Seize mode or Answer mode.

If the Listen-In Module is configured in Instant Seize mode, then when it is first signaled from the panel, it instantly seizes the phone line and signals the panel through the Listen-In Module zone but does not turn on the microphones. When the panel releases the connection to the Central Station and deactivates the Listen-In Output, the Listen-In Module already has the line seized and assumes the connection.

If the Listen-In Module is configured in Answer mode, then after the panel has signaled it by activating and later deactivating the Listen-In Output, the Listen-In Module starts its incoming call timer. The incoming call timer starts when the Listen-In Output is dactivated and runs for five minutes. If a call comes in while the timer is running, then the Listen-In Module answers the call on the first ring. At that time, it signals the panel through the Listen-In Module zone that it has seized the line.

When the control panel detects the Line-Seized signal from the Listen-In Module zone, it temporarily silences all alarm tones at the Control Stations and the Bell Outputs, although the alarm output timers continue. When the Listen-In Module releases the phone line, it removes the Line-Seized signal to the panel. When the control panel detects the Line-Seized signal has been removed, it no longer silences alarm tones at the Control Stations and Bell Outputs. The Bell Outputs are reactivated if they have not timed-out.

Also, when the panel detects the Line-Seized signal from the Listen-In Module zone and gets an event (any event) to report to the Central Station, the panel signals the Listen-In operator by momentarily seizing the phone line and producing a tone. This interrupts the Listen-In Module connection for about one second but it does not hang-up the phone line. The panel also starts a two minute timer. It will not try to call out to the Central Station until either the Line-Seized signal from the Listen-In zone is removed or the two minute timer expires, whichever comes first. If the timer expires before the Line-Seized signal is removed, the panel seizes the line to dial out to the Central Station, disconnecting and hanging up the Listen-In Module's connection.

If an alarm is silenced through a Control Station during a Listen-In session, it has no impact on the Listen-In operation.

**NOTE**

**If a Holdup Alarm event is reported to the Central Station, it is the Listen-In operator's responsibility to NOT activate the speakers on the Listen-In Module.**

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## Note 12: Delay Before Dial Time

The **Delay Before Dial Time** is used as the time that a user has after a Burglar, Holdup, or Auxiliary Alarm from a zone has occurred to silence the alarm with a disarm and abort the Alarm event.

If the Delay Before Dial Time is not zero and the alarm is silenced before the Delay Before Dial Time expires, then no Alarm events are posted to be reported. If this occurs and **Log Alarm Aborted Events** is enabled, then **Alarm Aborted** events are posted for each zone that went into alarm, but they are not reported.

If the **Delay Before Dial** Time is zero or if the **Delay Before Dial** Time expires before the alarm is silenced with a disarm, then the Alarm events are posted to be reported. If the alarm is a Burglar Alarm and the alarm is silenced with a disarm before the Burglar Bell Cutoff Timer expires, then a "Cancel Alarm" event is logged to be reported.

If an alarm in a Control Station's Primary or Secondary area is in Delay Before Dial Time, then when the OFF CANCEL key is pressed on the Control Station, all alarms in the Control Station's Primary and Secondary areas are muted until the **Delay Before Dial** Time expires. While an alarm is muted, the Control Stations do not produce the alarm tone for the alarm and the Bell Output(s) are silent. The muting of an alarm does not affect the operation of programmed outputs. If the **Delay Before Dial** Time expires without the alarm being silenced, then the Control Stations resume the alarm tone and the Bell Output(s) re-activate. The alarm cut-off timer(s) continue to count while the alarm is muted.

## Note 13: Fire Delay Before Dial

The **Fire Delay Before Dial Time** is used as the time that a user has after a Fire Alarm from a zone has occurred to silence the alarm and abort the Alarm event.

If the **Fire Delay Before Dial Time** is not zero and the alarm is silenced before the **Fire Delay Before Dial Time** expires, then no Alarm events are posted to be reported. If this occurs and **Log Alarm Abort Events** is enabled, the **Alarm Aborted** events are posted for each zone that went into alarm, but they are not reported. If a Fire Alarm is silenced before the **Fire Delay Before Dial Time** expires, the user has 255 seconds to reset the smoke detectors, otherwise a smoke reset will automatically occur when 255 seconds elapses.

If the **Fire Delay Before Dial Time** is zero or if **Fire Delay Before Dial Time** expires before Fire Alarm is silenced, then the Alarm events are posted to be reported.

If a Fire Alarm is in **Fire Delay Before Dial Time** then when the Off Cancel key is pressed from a keypad, all alarms in the keypads Primary and Secondary area are muted until the **Fire Delay Before Dial Time** expires. While an alarm is muted, the Control Stations do not produce the alarm tone for the alarm and the Bell Output(s) are silent. The muting of an alarm does not affect the operation of programmed outputs. If the **Fire Delay Before Dial** Time expires without the alarm being silenced, then the Control Stations resume the alarm tone and the Bell Output(s) re-activate. The alarm cut-off timer(s) continue to count while the alarm is muted.

## Note 14: Transmission Formats

If the Data Format is "Pulsed 20 Baud - Non-Extended", then the number of digits in the account code determines how events are reported. If the fourth digit of the account code is 0, then events are reported in the 3/1 Non-Extended format. If the fourth digit of the account code is not 0, then events are reported in the 4/1 Non-Extended format. Only the first digit of the report code is sent. If an account code digit or the first digit of the report code is 0, then that digit is transmitted as an 'A'. Each event is reported in two rounds for verification.

For the 3/1 Non-Extended format, the first three digits of the account code and the first digit of the report code are transmitted in a round. For the 4/1 Non-Extended format, the first four digits of the account code and the first digit of the report code are transmitted in a round.

If the Data Format is "Pulsed 20 Baud - Extended" or "Pulsed 40 Baud - Extended", then the number of digits in the account code must be four (4) digits. Both digits of the report code are sent. If an account code digit or one of the report code digits is 0, then that digit is transmitted as an 'A'. Each event is reported in two rounds for verification.

For the 4/2 Extended format, then the first four digits of the account code and both digits of the report code are transmitted in a round.

If the Data Format is "Contact ID", then the first four digits of the account code are sent. The report code is only used to determine if the event is sent or not. The reports are generated from a Contact ID report table. This is an Ademco developed format.

If the Data Format is "Non-Telco Contact ID", then the first four digits of the account code are sent. The report code is only used to determine if the event is sent or not. The reports are generated from a Contact ID report table. The report will be sent to an interface device over the data

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bus. The interface device will send an acknowledgment to the system upon successful transmission of an event. The telephone number will not be used, but the first digit of Telephone Number 1 must not be an 'F'. If the interface device responds back with a transmission failure or if the interface device "loses" the event, the system will view it as a failed dial attempt. If the interface device is not responding on the data bus, a "Telco Failure" condition will be posted and the system will not try to report through the interface. This may cause a "Comm Failure" condition to occur or the event may be reported using another phone number.

If the Data Format is "Pager", all six digits of the account code and both digits of the report code will be added on to the end of Telephone Number 2. The digits in the telephone number will consist of the pager's phone number, a significant delay, and possibly the beginning of the pager message. The telephone number will be dialed for the number of dial attempts programmed and the pager message will be blindly sent each time. There will be no feedback and, therefore, no failed to communicate.

The Pager format is perfect for the parent who works late and wants to know if their child arrived home safely. When the child disarms the system, the parent is paged. Since arming/disarming reports are programmed for each user, the system can be programmed to only page when the child's user passcode is used or when a passcode with the User on Premises authority level is used. The pager format can also be used with the Latchkey Supervision report to page the parent when the child does not come home when expected.

## Note 15: Powering Up While Armed

If either area is armed when the panel powers up, violations from all the burglar zones are ignored for three minutes. This allows all armed PIRs to stabilize without causing false alarms.

## Note 16: Universal Outputs

A Universal output may be assigned to any combination of areas and is controlled by the Universal timer or keypad in each of the areas. When a Universal or Universal Logged zone in an area is violated, the area's Universal timer will begin a countdown. If the Universal Output Time is set to zero (0), then the area's Universal timer will turn ON. To turn it OFF, use the ENTER + Key #2 secondary function.

If the Universal Output Time is not set to zero (0), then the ENTER + Key #2 secondary function will override the Universal Output timer. For example, if the timer is running when the function is performed, then the output will be turned OFF and the timer will halt. A new zone activation will turn the output ON and re-start the timer. If the timer is not running when the function is performed, then the function will turn the output ON and subsequent zone violations will be ignored until after the output is turned OFF by performing the function again.

A Universal output will go ON STEADY when any of its areas have a Universal timer that is either running or ON. If the Universal Output Time is 0, only one area should be used to control a Universal output. Otherwise, an area will not be able to turn the output OFF if another area has turned it ON.

## Note 17: Lamp Trigger Outputs

A Lamp Trigger output will change state (ON to OFF or OFF to ON) for the Control Station's Primary area when the ENTER + Key #1 secondary function is performed. If the output is turned ON with the ENTER + Key #1 secondary function and then an arming occurs, the output will turn OFF when the Exit Time expires.

## Note 18: Access and Quick Access Outputs

An Access output will be controlled by the Access operations (0 + passcode) performed on any of its Control Stations or from RPM. A Quick Access output will be controlled by pressing ENTER + Key #3.

If a Control Station is used to toggle an Access or Quick Access output between ON and OFF, then it should be the only Control Station controlling that output. Otherwise, you may not be able to turn the output OFF if another Control Station has turned it ON.

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# 4 Digital Communicator Table For Contact ID Formats

This section cross-references many of the reporting options and equivalent codes sent by Sentrol-manufactured controls when transmitting in the Contact ID formats.

*Simplified example of data sent in Contact ID format: SSSS 18 Q XYZ AA CCC*

Where: SSSS = 4 decimal digit subscriber #

18 = Contact ID que for automation systems

Q = Event qualifier; 1 = new event or opening; 3 = new restore or closing; 6 = previously reported event

XYZ = Event code (3 decimal digits)

AA = Area number (00 for system events)

CCC = Zone, sensor, or user # (3 decimal digits)

| Event Type | CID Code | Event Source |
|---|---|---|
| 'A' Key Fire Alarm | 1115 | 500 + Keypad (1 - 6) |
| Zone Fire Alarm | 1110 | Zone (1 - 30) |
| Zone Fire Supervisory | 1200 | Zone (1 - 28) |
| Zone Burglar Alarm | 1130 | Zone (1 - 28) |
| Zone Burglar Tamper | 1137 | Zone (1 - 28) |
| 'B' Key Holdup Alarm | 1120 | 500 + Keypad (1 - 6) |
| Zone Holdup Alarm | 1120 | Zone (1 - 28) |
| Duress | 1121 | User (1 - 50) |
| 'C' Key Auxiliary Alarm | 1100 | 500 + Keypad (1 - 6) |
| Zone Auxiliary Alarm | 1100 | Zone (1 - 28) |
| Zone CCM Alarm | 1150 | Zone (1 - 28) |
| Zone Fire Trouble | 1373 | Zone (1 - 30) |
| Zone Fire Test Mode Begin | 1604 | Zone (1 - 30) |
| Zone Burglar Trouble | 1370 | Zone (1 - 28) |
| Zone Holdup Trouble | 1370 | Zone (1 - 28) |
| Zone Auxiliary Trouble | 1370 | Zone (1 - 28) |
| Zone Other Trouble | 1370 | Zone (1 - 28) |
| Senior Watch Trouble | 1641 | Zone (1 - 28) |
| Zone No Response on Bus | 1333 | Zone (13 - 29) |
| RF Point Not Reporting | 1381 | Zone (13 - 28) |
| Smoke Trouble | 1380 | Zone (13 - 30) |
| RF Sensor Tamper | 1383 | Zone (13 - 28) |
| RF Point Low Battery | 1384 | Zone (13 - 28) |
| Zone Fire Bypass | 1571 | Zone (1 - 30) |
| Zone Burglar Bypass | 1573 | Zone (1 - 28) |
| Zone Holdup Bypass | 1572 | Zone (1 - 28) |
| Zone Auxiliary Bypass | 1572 | Zone (1 - 28) |
| Zone Other Bypass | 1570 | Zone (1 - 28) |
| Zone Fire Alarm Restore | 3110 | Zone (1 - 30) |
| Zone Fire Supervisory Restore | 3200 | Zone (1 - 28) |
| Zone Burglar Alarm Restore | 3130 | Zone (1 - 28) |
| Zone Burglar Tamper Restore | 3137 | Zone (1 - 28) |
| Zone Holdup Alarm Restore | 3120 | Zone (1 - 28) |
| Zone Auxiliary Alarm Restore | 3100 | Zone (1 - 28) |
| Zone Critical Condition Monitor Alarm Restore | 3150 | Zone (1 - 28) |
| Zone Fire Trouble Restore | 3373 | Zone (1 - 30) |
| Zone Fire Test Mode End | 3604 | Zone (1 - 30) |
| Zone Burglar Trouble Restore | 3370 | Zone (1 - 28) |
| Zone Holdup Trouble Restore | 3370 | Zone (1 - 28) |

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| | | |
|---|---|---|
| Zone Auxiliary Trouble Restore | 3370 | Zone (1 - 28) |
| Zone Other Trouble Restore | 3370 | Zone (1 - 28) |
| Senior Watch Trouble Restore | 3641 | Zone (1 - 28) |
| Zone No Response Restore | 3333 | Zone (13 - 29) |
| RF Point Reporting | 3381 | Zone (13 - 28) |
| Smoke Trouble Restore | 3380 | Zone (13 - 30) |
| RF Sensor Tamper Restore | 3383 | Zone (13 - 28) |
| RF Point Low Battery Restore | 3384 | Zone (13 - 28) |
| Zone Fire Bypass Restore | 3571 | Zone (1 - 30) |
| Zone Burglar Bypass Restore | 3573 | Zone (1 - 28) |
| Zone Holdup Bypass Restore | 3572 | Zone (1 - 28) |
| Zone Auxiliary Bypass Restore | 3572 | Zone (1 - 28) |
| Zone Other Bypass Restore | 3570 | Zone (1 - 28) |
| User AWAY Arm from Keypad | 3401 | User (1 - 50) |
| User STAY or NIGHT Keypad Arm | 3456 | User (1 - 50) |
| Quick AWAY Arm from Keypad | 3408 | No Data |
| Quick STAY or NIGHT Keypad Arm | 3408 | No Data |
| Keyswitch Arm | 3409 | Zone (1 - 28) |
| Installer Arm | 3400 | No Data |
| RPM/2 Pro Arm | 3407 | No Data |
| Auto Arm | 3403 | No Data |
| Auto Arm Failed | 1455 | No Data |
| Auto Arm Aborted | 3455 | User (1 - 50) |
| Closing Extended | 3405 | User (1 - 50) |
| Exit Alarm | 1374 | Zone (1 - 28) |
| Recent Closing | 3459 | User (1 - 50) |
| User Disarm from Keypad | 1401 | User (1 - 50) |
| Keyswitch Disarm | 1409 | Zone (1 - 28) |
| Installer Disarm | 1400 | No Data |
| RPM/2 Pro Disarm | 1407 | No Data |
| Latch Key Supervision | 1642 | User (1 - 50) |
| User on Premises | 1458 | User (1 - 50) |
| Keypad Locked-out | 1300 | 500 + Keypad (1 - 6) |
| Keypad Missing | 1330 | 500 + Keypad (1 - 6) |
| Keypad Missing Restore | 3330 | 500 + Keypad (1 - 6) |
| Burglar Alarm Canceled | 3406 | User (1 - 50) |
| Auto-Comm Test (Not Normal) | 1608 | No Data |
| Auto-Communicator Test | 1602 | No Data |
| AC Failure Reported | 1301 | No Data |
| AC Restore | 3301 | No Data |
| Panel Low Battery | 1302 | No Data |
| Panel Battery Restore | 3302 | No Data |
| Bell Fault | 1321 | No Data |
| Bell Restore | 3321 | No Data |
| Communication Restore | 3354 | No Data |
| Memory Error | 1303 | No Data |
| Begin Installer Local Program | 1627 | No Data |
| End Installer Local Program | 1628 | No Data |
| End Remote Programming | 3412 | No Data |
| Remote Programming Denied | 1413 | No Data |
| Remote Programming Aborted | 1412 | No Data |
| RF Jamming | 1381 | No Data |
| RF Channel Clear | 3381 | No Data |
| RF Keyfob Low Battery | 1384 | No Data |

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# 5 *UL Programming Requirements*

## Underwriters Laboratories (UL) Listing

This control is listed by Underwriters Laboratories (UL) as follows:

| Application | Listing |
|---|---|
| Household Burglary (Grade A) | UL 1023 |
| Household Fire | UL 985 |
| Central Station Burglary (Grade C) | UL 1610/1635 |
| Central Station Burglary (Grade B) | UL 1610/1635 |
| Home Health Care Signaling Equipment | UL 1637 |
| Local Burglary (Grade A) | UL 609 |
| Police Station Burglary Connection (Grade A) | UL 365 |

UL has established certain requirements which pertain to the installation, use, and programming of this equipment. The local Authority Having Jurisdiction (AHJ) and/or UL may have other requirements which apply to the installation of this system that are not detailed in this manual. It is the responsibility of the installing dealer to check with the AHJ and/or UL before installing this system. The following pages detail guidelines that must be followed in order to comply with the UL listings as stated above.

**UL Notes In This Manual**
- Key “0” (Access) - The control has not been investigated to UL 294 Access Control System requirements.
- Unsupervised Burglary Zones - UL does not permit the use of unsupervised zones.

**UL Notes About Program Functions**
- Entrance Delay Time (1 and 2) - Maximum of 45 seconds.
- AWAY Exit Delay Time - Maximum of 60 seconds.
- Burglar Alarm Cutoff Time - Four minutes minimum for household BA/FA and 15 minutes for commercial burglar alarm and police station connected burglar alarm system.
- Fire Cutoff Time - No automatic cutoff permitted. Will be programmed to “0”, no cutoff.
- Holdup Cutoff Time - maximum of four (4) minutes.
- Communicator Enable - Local or police station connected burglar alarm installations: The communicator must be enabled.
- Days Between Comm. Tests - Commercial installations: automatic test performed every 24 hours.
- Time Between Dial Attempts - UL certified accounts: no more than 45 seconds between attempts.
- Dial Type - Will not be programmed for foreign pulse.
- Dial Attempts Before Shutdown - Five dial attempts minimum, ten dial attempts maximum.
- Arming/Disarming Reports - This function will be enabled by programming report codes.
- Low Battery Reporting - This function will be enabled by programming a report code for Grade A Local Burglar, Grade A Police Connected, and Grade B and C Central Station Burglar installations.
- Two Button/Double Press Arming - These functions will be disabled. Four digit passcodes will be used.
- Enable Force Arming - This function will be disabled.
- Enable Bypassing - This function will be disabled.
- Burglar Alarm Output - Will be programmed to STEADY.
- Fire Alarm Output - Will be programmed to TEMPORAL.
- Burglar Loop Audible Lockout - This function will be disabled.
- Enable Bell Test Upon Arming - This function will be enabled for Grade A Local Central Station Connected installations.
- Enable Keypad Sounder for BA Zones - The system will have an audible alarm output upon alarm.
- Auto-Arming - This function will be disabled.
- Listen-In Modules must not be used.
- Burglar zones will not be programmed as Verifying or Self-Verifying.
- Output Type can NOT be programmed as Ground Start

**UL Notes About Zone Planning**
- Burglar Loops - Will be defined as Alarm on Open/Alarm on Short.
- Fire, Holdup, and Auxiliary Emergency Zones - Will not be defined as bypassable.
- Special Functions/Alarms - Burglar zones will have an audible output.
- Medical Emergency - At least one control station will be used as part of the system.
- Zone will not be defined as Fast

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